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EXCAVATIONS OF THE DHAHRAN BURIAL MOUNDS, THIRD SEASON, 1405 / 1985-86

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Introduction:

The Southern area of Dhahran is one of the important archaeological sites, in view of evidence found during the excavation periods conducted by the Department of Antiquities and Museums. It is a burial mound field located to the south of Dhahran airport and north-west of Ein Al-Sih. Farther south, there is an agricultural area covered with creeping sand, bordering Bahrain Gulf, 3 km. wide from north to south, 1 km. north of Douhat Al-Sih, and from the coast boundaries in the east to the marsh westward, between 6°, 15°-26′ N. and 50°, 15°-50′ E.

This year's excavation is an extension of previous excavations conducted by the Department of Antiquities and Museums, which revealed a great cultural significance through the results of those excavations, especially during the last two seasons (1403 and 1404 H./1982 and 1983). Twenty-two mounds were excavated during the first season, six of them in Area A and sixteen in Area B (see Plate 2, 3). Concentration of work at B – area during the second season, 1404/1983 resulted in the opening of fourteen burial mounds, the biggest of which were B-17 where 16 subsidiary tombs were excavated in addition to the principal one, and B-18 which contained a principal tomb with extensions and a small subsidiary tomb.

Mounds B-19, B-25, B-27 and B-32 contained one principal tomb each, whereas Mound B-21 contained three principal tombs and five subsidiary ones for children in the southern side of the mound. Mound B-24, however, was a unique in its type and contained twelve tombs, three of which were principal and the others subsidiary, located in various places within the ring wall. Mound B-23 had one principal tomb and three subsidiary ones. However, partially excavated mounds included mound B-24, of which only the southern half had been excavated then, and the remaining part was excavated during this season. Mounds B-28 and B-29 were also excavated. After we completed excavations in Area B, we moved to Area A in the western part parallel to the unpaved road connected with the southern gate (see Plate 5), where mounds A-7 and A-10 were excavated, as well as parts of A-8 and A-9. The complete excavation of these last mounds was postponed till next year. The excavated burial mounds were of different forms and sizes without specific form or type in common. A comparison can be made, however, between these burial mounds of Jordan, Palestine, Syria, Iran and Gulf Arab States including Bahrain, U.A.E., Oman and Kuwait.

The excavation team for this season was headed by archaeologist Ali Saleh Al-Mughannum, Curator of the Regional Museum in the Eastern Province, and included archaeologists Mr. Abdul Aziz A. Rahbini, Mr. Abdullah Al-Saud, Mr. Ali N. Al-Nasser, Mr. Abdel Aziz Al-Nefisa, and Mr. Abdullah Al-Hadlaq as members. It also included Mr. Rashdan A. Al-Eteibi, a financial officer. Mr. John Warwick, an Australian specialist in skeletal remains from Smithonin Institute also participated in this excavation.

Work went on as arranged by the Head of the excavation team and according to the plan discussed at the beginning of the season, and which required the application of most recent techniques such as photography, site location, general description of the mound, explanation of technique applied in

excavation, preservation and documentation of finds and follow-up of all excavation works executed by the members. The excavation phases were monitored and recorded, and the structural and architectural features of the burial mound were precisely recorded. Each researcher would complete a daily field form covering his field notes which would be included in the excavation report by the head of the team. Through this form, the field notes and assumptions could be discussed, and consequently a new plan could be developed for excavation works, as there was not a specific technique to be applied in mound excavation. It was hoped that discussions of member's views could lead to the adaptation of the most appropriate technique.

A researcher would not open any burial mound, whether principal or subsidiary, before taking photographs and making drawings for it. The head of the excavation team or his representative, should be notified of each procedure taken by the researcher. All notes were discussed in the field to get a clear practical idea about the excavation phases. The researcher should not change the structure of the tomb, or move any stones found in the mound, eventhough they were not in their original places, so that the size of the structure could be clearly perceived through the stones used in the mound. This precaution was taken in accordance with the new concept adopted this year for recording a complete representation of the mound and for preserving all tombs found in it as a tourist places which would be subject to subsequent investigation.

The works of this season included restoration of tombs excavated during the three seasons, taking into consideration that restoration works would match with the technical architectural elements of the tombs and without making any changes or adding any new architectural elements. Photographs and plans which showed the architectural details of the tombs should be used. The tombs restored were those found at mounds B-21, B-24, B-32, B-23, A-7.

Our constant objective was always to document the finds and to be precise in recording, drawing, taking photographs and in all aspects of field work which included a description of architectural elements of the tombs, and an analysis of building techniques. Excavation phases were followed to form a clear comprehensive concept about each mound. Work during this season and the last season was focused on investigation and classification of skeletal remains in order to identify the anatomy of the people who had been buried in these tombs.

Excavation results showed through samples of carbon analysis C-14, conducted this year that they date 3530 years, ± 195 years B.P.

The burial area was located near a strategic seaport which was also a commercial station for the land route connected with cultural centers in the Arabian Gulf and Arabia. It was a part of the eastern coast of Arabia, a highly appropriate site for establishing a cultural entity, embracing Arabia's largest oases, such as Al-Hassa, Hajar, Qatif, Al-Khat, and Jebreen Oasis which borders Al-Rub'al Khali desert 85 Km. west of Haradh. In view of this fact, the geography and nature of this area should be studied, and the fundamentals of civilization should be noted. The economic factors, in particular, should be considered, as economical geography is closely connected with the interpretation of cultural development and the recognition of its fundamentals. Thus, it would be possible to prove the ability of the Gulf area to embrace previous cultures and to interact with centers of ancient civilizations.

Excavations of Dhahran south area revealed similarity between the funeral enclosures here and those found in Bahrain and in Umal-Nar Island, U.A.E., and which date to early Dilmun 2500-2100 B.C. They are also similar to what was found in the linked tombs in Bahrain which are initially though to date 2100-1800 B.C. Definite date has not been designated yet, waiting for the results of carbon analysis. The skeletal investigation conducted by Dr. Bruno Florich has considered all possible periods which may be given by the investigation on the funeral enclosures. He has extended the time periods to avoid contradiction with the possible periods to be designated by the investigation which is being carried out on cultural finds.

Early Periods:

2800-1800 B.C. One thousand years.

2500-1800 B.C. Seven hundred years.

2300-1800 B.C. Five hundred years.

2050-1800 B.C. Two hundred and fifty years.

These different time periods cover the Bronze Age periods of Sar tombs which contain the oldest types of burials attributed to that period in the Gulf area (the body on the right side, head towards north east and feet in south west direction, while hands are slightly bent before the face) (Fig.).

Mound B-24 (first part excavation, 1404/1983 season):

It was decided to focus excavation works on the southern half of the mound, expecting to get better results. By adopting this technique, the structures of the tombs could be kept well-preserved. Thus, the mound was divided into two parts, southern and northern. The southern side was further divided into three parts for the excavation purpose:

(a) South West Part.

(b) Middle Part.

(c) North East Part.

This was carried out to know if it included small subsidiary tombs around the ringwall of the burial mound.

This mound is one of the big mounds of Area – B, located at the southwestern side of this area, south of mound B-23. It is 2.25 m. high, and its diameter is 24.5 m. The excavated part (a) at the southwestern side is a right-angled space, the northern side of which is 6 m. long and the eastern side is 9 m. long, whereas the hypotenuse is represented by the periphery of the mound itself. A plaster piece was discovered 60 cm. below the surface at the eastern side, and stones were found at the right angled corner of the probe 70 cm. below the surface. At a layer 60-85 cm. deep of the exterior debris, pottery sherds of various colors, some with black geometrical lines (Dilmun/Jamdet Nasr) were found. At excavated part (b) which is the main excavation, skeletal remains and pottery sherds were found at a layer 70-100 cm. deep, and stone debris were also found in the middle. Pottery sherds were found 60-100 cm. below the surface. This excavation represents a semi-rectangle with one of its sides forming half of the 7 m. long mound in the middle of which lies the center of the circle. Both the eastern-western sides are 9 m. long, whereas the fourth side is represented by a part of the mound periphery within this excavation.

On the top of the mound, a pile of stones was discovered; it was thought to represent a tomb over the previous main tomb. But this has not been verified yet and will not be known until excavation of the mound is completed.

Subsidiary tombs were excavated inside the ringwall of the mound, of various types and locations. Some of these tombs were separate from the central principal tomb and were considered as main subsidiary tombs; i.e. tomb No. 3, the main tomb No. 1 in the center, the direction of which has not been known yet, and tomb No. 2 built over it. Others were small subsidiary tombs within the fence, i.e. tomb 4, tomb 5 and tomb 6.

After reaching the original floor of the mound and representation of structural elements was made in excavated part (b), we started to remove layers of rubble in tomb No. (3) which was in the east-west direction, and its southern side or wall represented a part of the ringwall. As there was no stone cover over the tomb, therefore, bones were crumbled and calcified as a result of weathering. Then, we started

to remove the last layer, 110 cm., to the floor. All earth and debris removed from the mound were saved. A cut stamp made of sea shell was found at the western wide, 120 cm. deep, of the north western corner No. (11). Small human skeletal remains and few small pottery sherds were found from the tomb.

Comments:

1. Only few, pieces of crumbled bones were found.

2. The discovery of the cut sea shell stamp, which was possibly used during early Dilmun periods.

3. It was one of the big subsidiary tombs, 4.75 m. long inside, 5.10 m. long outside, 70 cm. wide inside, 1.60 m. wide outside, 1.25 m. high, and the floor inside was 4.85 m. long and 90 cm. wide.

Excavated part (c) had a right angled form located at the south eastern side of the mound, where the hypotenuse was represented by the periphery of the mound. This excavation was carried out to discover the ringwall. Well-laid stones were found in this part which was perhaps a part of the ringwall which is still covered by the mound debris. The excavation of this mound has not been completed yet, because it is a very big one and excavation works have been stopped for this season. So, work on this excavation is postponed to the next season, 1405/1985-86.

Subsidiary Tombs of Mound B-24:

Subsidiary tomb No. 3 is a huge one and represents a main tomb which has been already reported in the previous presentation. A vessel lid made of transparent white marble (No. 10) and a small stamp made of shell (No. 11) were discovered in this tomb. The subsidiary tomb No. 4 is small and full-rounded. A skeleton of very little child and few sea shells were found in this tomb. It is located 60° northward, and is 84 cm. long, 54 cm. wide and 42 cm. high.

The subsidiary tomb No. 5 is also a small fully-rounded one where a skeleton of a little child was found with few beads. Its direction is 57° north, and it is 63 m. long, 36 cm. wide and 34 cm. high. The subsidiary tomb No. 6 is small and it includes part of the fence. This excavation has not been completed yet (see plates 4, 5, 6, 7).

Mound B-24:

To complete the excavation of this mound, the remaining northern half was excavated during this season, 1405 H/1985-86.

Supplement of the report on mound B-24, Third Season: Tomb No. 7 (subsidiary), built on additional floor laid over the original one, 50 cm. deep, with mortar, complete stone cover, used one time only, direction 50° north, dimensions: 65 cm. long, 35 cm. wide, and 40 cm. high, human bones still in order. A ground plan was made together with slides in white and black and in colour.

Comments:

1. The floor was of higher level than the original one and was rammed.

2. The burial layer was very soft with 15-20 cm. space between it and the covering stones.

3. A skeleton of a one-year old child was found.

4. The child was perhaps a female, as make-up articles were found along with the skeleton.

5. Direction of the body was northeast-southwest.

6. An earring was found at the northeastern corner, and few beads which were perhaps used as trinklets for feet (e.g. anklets etc.).

7. The tomb is in a good condition, untouched and covered with one big stone.

Mound B-24:

Tomb No. 9 is a subsidiary tomb, built on the surface with small stones and mortar, in a good condition, with complete cover consisting of four huge stones, used twice, containing two skeletons, the direction 122° north, 120 cm. long, 50 cm. wide, 50 cm. high complete human skeletons, but they were eroded and crumbled, slides in white and black and in colour.

Comments:

1. Two human skeletons for two children were found, but the bones are crumbled and highly eroded.

2. Beads were found at the south eastern side.

3. Through excavation, it may be proved that the later buried body was a 10-12 year-old child.

4. The tomb is well-built with small stones and mortar, the floor is even and represents the complete original floor of the tomb.

5. The tomb is closely adjacent to the ringwall inside, and the ringwall in this side is knocked down.

6. Ornament beads usually worn around the neck were found at the southeastern end.

7. A small vessel was found at the northwestern half 10 cm. from the wall and 45 cm. from the western front of the tomb.

8. The cover of the tomb is complete and contains a soft burial layer with a 10-15 cm. space between it and the cover.

Mound B-24:

Tomb No. 10

Subsidiary tomb for a little child built with stones, mortar, complete cover containing five stones, direction is 63° north, 60 cm. long, 35 cm. wide, and 30 cm. high.

Comments:

1. The floor is 30-40 cm. higher than the original floor and represents a built and rammed floor.

2. Skeletal remains are extremely work out by erosion factors, humidity and salts and belong to a little child 1-2 years old, the direction of the body is east-west.

3. The tomb was built near the southeastern end of tomb No. 9 and to the north of the northern extension of the main tomb 6 - 24/1.

Mound B-24:

Tomb No. 11

Is subsidiary with the form of a rectangle, built on the surface with stones and mortar, complete cover with six stones, perhaps used only one time, direction 340° north, 145 cm. long, 65 cm. wide, 60 cm. high, human bones in good order but worn out, slides in white and black and in colour.

Mound B-24:

Tomb No. 12

A main subsidiary tomb, L-shaped, the northern extension at the eastern end is considered as part of the tomb, built on the surface with mortar and well-laid stones, with strong well-built structure, part of the stone cover found on the northern side, frequently used, direction 54° north, 370 cm. long, 105 cm.

wide, 170 cm. high, human bones not in order. A ground plan was made, and slides as well, in colour and in white and black. A large number of human skulls amounting to 48 were found. Work was carried out for restoring the northern side in order to fix wall stones.

Comments:

1. The tomb was built on an even floor with closely laid stones and mortar. Small stones were used to fill spaces between larger stones with local gypsum which is a burnt sea plaster (Khakari Plaster).

2. There is a crack in the southern wall at the south west side, with fallen stones inside the tomb perhaps intentionally, in order to reuse the tomb at subsequent periods, as shown by the presence of several skulls. This is confirmed by the strong built western side of this tomb, difficulty of opening the tomb from this side because of the mortar cast there, to protect it and prevent access to it or subsequent use. It was used at its south western side only.

3. The floor of the northern side was 40 cm. higher than the floor of the main tomb, but was built with the same mortar used for building the tomb. The level of this extension is lower than the level of the tomb, and it becomes lower as we move northward or toward its northern end. It also gets narrower in the same direction forming the shape of a funnel with one side 70 cm. wide and the other 45 cm. wide, 10-15 cm. high.

Mound B-24:

Tomb No. 13

Tomb No. 13 was a subsidiary tomb. The floor and walls were built on the mound debris. It was 40 cm. higher than the original floor. The floor was even and rammed. It was built with small stones and mortar. Its stone cover was complete. It seems that it was used only one time, direction 35° north, 80 cm. long, 30 cm. wide, 30 cm. high, human bones in good order, but crumbled and worn-out. A ground plan was made, together with slides in white and black in colour.

Comments:

1. It was built with small stones. Walls consisted of one row of stones, with three stones used as a corner.

Mound B-28:

Diameter 24 m, 2.40 m. 2.60 m. high. The technique used in this excavation was to uncover all of the western side, then a surface excavation was made in the direction of the central main tomb, the dimensions of which were shown in plate 8.

The tomb is a collective one and forms with the northern side, L-shaped at the eastern end to the north. It was built on the original floor. Only one stone of the cover was in its place at the eastern end of the tomb, while the others were moved from their places but within the tomb. The stones of the upper western side of the tomb were built over other burial layers, suggesting frequent used shown through the existance of upper burial layers over skeletons buried under them.

Direction of the Tomb:

68° North, 5.50 m. long, 1.05 m. wide, 1.80-2.00 m. high, diameter of the ringwall 14 m., 30-60 cm. high, 40-50 cm. thick, some of the human bones were well-preserved and some of them partly in order. No subsidiary tombs were found outside the fence in the excavated area, but perhaps would be discovered at the eastern side which has not been excavated yet (Plate No. 9). A ground and elevation plans were made, and slides, as well, in white and black and in colour.

Comments:

1. The building of the fence was in good shape, and the debris separating it from the main tomb was left in order to support the fence from behind, and to reduce efforts to be exerted in removing earth.

2. There was a heap of stones at the western side of the mound. We thought first that it represented a subsidiary tomb but were found eventually to belong to the ringwall.

3. A trench was made along the excavation parallel to the elevation from the north to the south, in order to identify layers of exterior debris and to recognise the topography and building phases of the mound.

4. This mound was located at the eastern side of Area B to the east of mound B-32.

5. The western half of the ringwall was fully-rounded.

6. The entrance of the tomb was different in structure from the basic structure of the tomb, suggesting different periods of building. Huge stones at the bottom of the western side of the tomb were linked with the northern and southern walls of the tomb and were identical with the basic structure, while the upper structure was built with rubble and mortar in an irregular way.

7. There was no evidence of any main tombs other than the excavated central one, while the unexcavated part of the tomb may contain small subsidiary tombs.

8. Burial layers at the main tomb were mixed with material from the exterior debris, as a result of the collapse of the corner stones into the main tomb.

9. The excavated part of the ringwall was fully-rounded and represented a semi-circle.

10. Right from the beginning, the technique of dividing the mound into two sections was applied.

11. After excavation of one half of the mound, the upper probe was drawn, paying attention to the structural elements of the tomb.

12. Only one stone was left as a cover at the eastern side of the main tomb, while the other stones were moved and some of them were collapsed into the burial chamber.

13. A complete skull was found 60 cm. below the surface near the southern wall of the tomb 140 cm. from the eastern end. The skeleton which belongs to this skull is, perhaps in the western part of the tomb, as it is 140 cm. from the other skull, and this distance is sufficient for a complete skeleton to be buried in a squatting position. At the eastern end of the tomb, there were heaped skeletal remains.

14. Dimensions: 5.50 m. long, 1.05 m. wide, the northern extension is 85 cm. wide at the front side and 40 cm. at the northern end. The upper level is 60 cm. wide. The interior part is 2 m. high at the eastern end, and 1.80 m. at the western side, and this difference is due to the slopping floor of the tomb which gets deeper as we move eastward.

Mound B-29:

Diameter: 20 m., 2.5 m. high, located to the north of mound B-28, both in the same direction.

Excavation technique used here was to open the south western quarter of the mound and after finding the beginning of the central main tomb, we could go ahead with the excavation of the whole burial mound. Dimensions are shown on plate No. 10. It was a collective tomb making a L-shaped form with the northern extensions. It had a part extending southward at the center. It was built on the surface with stones and mortar.

Two cover stones were found intact, while other stones were moved or collapsed. It was used several times.

The direction of the tomb is 90° northward, 425 cm. long, 95 cm. wide, 170 cm. high, diameter of the ringwall is 14.30 mm., 50-60 cm. high, 40-70 cm. thick.

Human skeletal remains were disarticulated, however, some of them were articulated. No subsidiary tombs were found at the partly excavated, outside and inside, fence. The excavation is not completed and the remaining debris is left in order to protect the structures of the main central tomb.

A ground plan was made, plate No. 10 and an elevation, as well, plate No. 11, slides were also made in white and black and in colour.

Comments:

1. The fence in the excavated south western and north eastern sides was in a good shape. The debris was removed down to the original floor of the mound.

2. Human skeletal remains were found outside the main tomb.

3. The structure of the tomb was strong and in good order, but it was damaged in certain places, especially the western part of the southern wall and at the western side of the tomb.

4. The entrance of the tomb seemed identical with the structure of the main tomb. There was a threshold 80 cm. high, thus, making it different from the tomb at Mound B-28 which had no such a threshold.

5. Some earthenware were found in this tomb, in good and complete shape.

6. This mound is located to the mouth of mound B-28, both mounds are in the same direction, at the eastern end of area B near unpaved road. However, mound B-29 is bigger than mound B-28 in size.

7. The technique used in this excavation is the same technique which was used in mound B-23 last year. The mound was divided into four sections and the south western part was chosen. After the boundary of the tomb and the ringwall had been excavated in this section, a probe was made in the north eastern section where the ringwall and the eastern end of the tomb were discovered. Then an upper probe was made in order to represent the whole main tomb.

8. No evidence of any main tomb appeared in this mound, and no subsidiary tombs were found in the excavated sections.

9. The fence is fully-rounded and is built with huge stones as the tomb was located at a depression surrounded by an elevated area.

Mound A-7:

Diameter 18 m, 2.70-2.80 m. high from the edge of 1975 excavation, but could be 3 m. high from the top of the mound.

The excavation technique used in this mound is required of making a trench the width of which was equal to the length of 1975 excavation which was at the upper part of mound. The direction of this excavation was east-west, tracing the direction of the main tomb in the middle of the mound.

The main tomb in this mound was collective L-shaped, with an extension at the eastern end toward the north. The tomb was built on the surface with mortar and rammed stones and supported with the earth of exterior debris. Four stones were found covering the tomb, and one had fallen into the main tomb during 1975 excavation. It was used several times.

The diameter of the ringwall:

14.5 mm., 80-90 cm. high, 60-70 cm. thick. The human bones were in good order. No subsidiary tombs were found outside the fence. Mound excavation was not completed i.e. nor all the earth of the

debris was removed. A ground plan was made, plate No. 12, and elevation for the layers of the exterior debris, plate No. 13, slides in white and black and in colour.

Comments:

1. Five human skeletal remains were discovered at the northern extension, but they were disarticulated. Human bones were heaped at the eastern end of the tomb which was linked with the northern extension.

2. This mound was previously excavated in 1975 by the Department of Antiquities and Museums, but couldn't complete the excavation of the main tomb.

3. There was rubble debris at the western side of the mound.

4. The mound was built on a rock terrace sloping down eastward. Thus, we assumed that the ringwall had been built with western side less high than the eastern side, keeping the mound debris in balance. The western side was 40-50 cm. high, while the eastern side was 100-80 cm. high.

5. There was a sudden slope to the east after the rock terrace. This formed a natural protection for the mound against floods.

6. The western edge of the tomb was built with the tomb, but the upper stones were laid on burial layers, suggesting frequent use. The upper stones, were used at the entrance, so that they might be easily moved for subsequent burials.

7. The whole tomb was represented from outside, this required supporting it with wooden props and fixing its stones with cement mortar mixed with local fine earth, in order to protect the collapse after removing interior debris.

8. It was necessary to move the cover of the northern extension during excavation.

Mound A-10:

Diameter: 15.00, 80-90 cm. high.

Excavation Technique: The mound was divided into four sections, each forming one quarter of the mound. The north eastern section was cut, and then the whole western half was cut, leaving an area separating the eastern half from the western one. A probe was made in the middle to reveal the stone features of the main tomb. The tomb was rectangular with no extensions, built on the surface with mortar and rammed stones, and supported with the exterior debris of the mound. No evidence of frequent use. Direction of the main tomb in the middle 73° north, 170 cm. long, 68 cm. wide, 85 cm. high thickness was not regular. Human bones were crumbled and disarticulated, presumably of one skeleton only. Four subsidiary tombs were found, three of which were located outside the ringwall, and one inside. The three tombs were at the eastern side of the tomb (see the ground plan, Plate No. 14, and the elevation plan, Plate No. 15). The excavation was completed. Slides were in white and black and in colour.

Comments:

1. Most of the mound stones were removed especially those of the ringwall, perhaps to be reused for building other mounds, as it was easy to find the debris of the mound. The stones of the ringwall were not in order.

2. The level of the debris at the western side was lower than that of the eastern side, as the mound was located at a slope.

3. Copper ornaments were found at the southwestern side, perhaps funeral enclosures, in the subsidiary tomb No. 3 within the boundaries of the ringwall.

4. Pottery sherds were also found at the western side mixed with exterior debris. Also the body of a pottery vessel was found at the southwestern side, and a small pottery vessel in the form of a pomegranate, as well, in subsidiary tomb No. 2, near an eroded burnt vessel, both at the eastern side of the mound.

5. Cover stones were complete. One of them was moved to excavate the interior debris (burial layers of the principal tomb).

6. Three pottery vessels were found in subsidiary tomb No. 1, in addition to a small pottery vessel with black paste, missing mouth, and few fragments in subsidiary tomb No. 2.

7. A glazed stamp was found in the middle of the principal tomb, 75 cm. deep.

8. It was not possible to trace the human skeleton in the principal tomb, as it was crumbled and not in order.

Inventory of most important finds of Dhahran south excavations during third season 1405/1985:

I. Gold ornaments:

Mound B-24:

Collection No. 82, B-24/1

Two earrings of pure gold, the big one 1.6 gram, the small one 0.33 gram, total weight 1.9 gram, found at a 16 cm. deep layer inside the southern extension in the form of a crescent.

Collection 97, B-24/1

Two earrings of gold, identical with collection 82 V 24/1, and a small gold earring with two sides in the form of a flower, one of them would be fixed inside the other by spiral twisting. The total weight of the three pieces is 3.2 gram. They were found at the southeastern corner 60 cm. from both the southern and eastern walls of the principal tomb No. 1.

Collection 5/A/7

A gold ring with engraving representing a head of two dragons or other mythical animals. It weighs 4.67 gram and was found at the western side of the mound in the exterior debris 10.5 m., from the western end of the mound, 27 cm. from the southern edge of the excavation, and 2.25 m. from the northern edge and 1.35 m. deep below the surface of the mound, outside the main tomb (Plate 16).

Artifact No. 114, B-24/1

A gold earring, weight 1.58 gram, of a crescent form, found at the eastern end of the main tomb No. 1 from the depth of 145 cm.

Artifact 4/A/8/24

A gold nose ring. A nose ring is usually fixed in the left side of a woman's nose, a tradition which is still existing in the eastern region and in other nearby countries such as India. It represents a kind of ornament which was used by Arabs of pre-Islamic periods. Parallels were found in tomb No. 1 of the mound A/5 during first season 1983 near the nose of a human skeleton.

Artifact 19 A/8/2

A gold crescent-shaped ring weighing 5.8 gram, found at the entrance of the tomb near the skull No. 1, 71 cm. deep inside the main tomb.

Artifact 25 A/8

A thin gold earring in the form of a plate, not rounded, both ends tapered, easy to lock, soft, weight 0.09 gram.

Collection 30/A/B

A thin gold earring in the form of a plate, not rounded, both ends tapered, easy to lock, soft, weight 0.09 gram.

Collection 30/A/B

A collection of gold artifacts, five pieces. One big crescent-shaped hollow earring, both ends are tapered for hanging, a small hard gold earring; and three earrings with both sides in the form of a flower, one of them can be fixed inside the other by spiral twisting. The total weight of the five pieces is 2.1 gram.

Artifact 3/A/10/2

Five gold pieces: One big and two small earrings, and two nose rings.

II. Stamps:

This inventory is taken from a report, by the same writer titled "Dhahran South Stamps as Evidence of Ancient Cultural Relations" presented to The 8th International Conference on South Asia's Antiquities held in Mostmard Museum in Denmark, July 1-5, 1985.

Stamp 89 B 24/1

A stamp made of sedimentary stone, light brown, with spiral lines, glazed surface, representing a camel's foot or an animal in a sitting position, 21 cm. long, 1.65 cm. thick and 1.2 cm. wide (plate 17).

Stamp 96 B 24/1

A cylindrical stamp, the design perhaps represents certain sea plants or fish inside a fishing net, showing the curling surface of the sea, 1.95 cm. thick, 4.7 cm. long. It was, perhaps, made of levigated clay or of light sedimentary stone (pl. 17).

Stamp 102 B 24/1

Scarab of burnt gypsum. The design of the stamp is divided into 24 squares by three horizontal lines and five vertical lines. This gives hints of hexagonal counting system. Horizontal lines were engraved on the back of the stamp representing compositions of the Egyptian scarab, with a hole in the form of a tunnel used for hanging. The engravings were damaged and three squares were missing (pl. 17).

Stamp 103 B 24/1

A stamp made of light green soap stone in a rectangular form, repesenting a bead, in the middle of which there is an inscription, perhaps in Arabic letters, which is not clear, 1.7 cm. long, 1.3 cm. wide, .8 cm. thick (pl. 17).

Stamp 104 B 24/1

An amulet of diorite stone in the form of a rhomb, a human figure is lightly engraved on it 3.00 cm. long, 1.6 cm. wide, .4 cm. thick (pl. 17).

Stamp 108 B 24/1

A stamp made of a seashell, the design of which representing spiral circular lines, dome-shaped back with four circles and dots representing the centers of those circles, conical in form (pl. 17).

Stamp 113 B 24/1

A stamp, made of wood in the form of a camel with two heads on either side and a hump in between. The design contain 24 small squares, 2.4 cm. by 1.8 cm. in the middle and 1.00 cm. thick, sisem wood, polished, with a hole on the upper part for hanging. It was, perhaps, used as an ornament hung on the chest.

Stamp 8/A/10 (Principal Tomb)

A stamp made of glazed soap stone, circular, the design is divided into two sections, each containing four figures of mythical animals. This type is known as Gulf Stamp. There are four circles on the back of the stamp (pl. 18A).

Stamp 8 B 24/1

It is like a small Egyptian Scarab found within a collection of clay beads. It is made of gypsum, painted green, perhaps with a trace of glazing coat.

Stamp 10/B 29

A piece of pottery in the form of clay stamp similar to the known Dilmun clay, with no engraving or inscription, 1.6 cm. dim., 1 cm. high.

III. Rock Art and Inscriptions:

Several inscriptions were found in various parts of the Kingdom, some of which belong to northern Arabia types, while others belong to southern Arabia types. Carvings were discovered at many archaeological sites in the Kingdom such as Tayma, Ha'il, Tabuk, Mada'in Saleh, Makkah, Medina, Ta'if, Khaiber, Nejran, Thaj, and Dhahran. Excavations of first season, 1403/1982 and third season, 1405/1985-86 in the Dhahran south area resulted in the discovery of two inscriptions in Southern (Musnad) script. Both were incomplete; the first one was carved on a stock block with a part of it lost, while the other which was discovered this year at mound A/8 was found in a crumbled structure of tomb No. 3. It was made of gypsum and cast on a gypsum block, too, as a base for the text. The inscription is not in a good condition. The upper layer is broken and some of the letters are lost (Pl. 18B).

IV. Beads:

Various collections of beads were found, different in size, shape, colour, and material. These collections were classified according to shape as cylindrical, tubular, curved, conical, spherical, circular, discoidal, hexagonal, diamond-like, shell-like, floral, spiral and others with irregular shapes. The size and the material of these beads are different. Some are made of flint stone and fire stones, such as metamorphic, ophinsus, diorite, barshia, granite and marble; and some are made of sedimentary stones which contain bone petrifications such as limestones, etc. Some of the beads which are made of clay and gypsum have a circular or spiral shape. Most of the beads found are of the semi-precious kinds, such as garnet and carnelian. Only one non-cellulose bead of the kind known in Afghanistan and Sind basin area was found.

The collections found were strung. Fourteen collections were found in the remaining part of mound B-24 tombs and given the following members: 7, 27, 39, 45, 77, 78, 81, 83, 87, 88, 92, 106, 112, 115. The

collection 78 was divided into four types; a, b, c and d. Collection 92 and 113 were divided into three types; a, b and c. Collection 115 included two kinds; a and b.

Collection 1, 2, 3, 20 and 23 were found in the principal tomb of mound B-29, and they were put together in one string. In mound A/8, which is one of the important mounds and which we expect to be highly promising next season, the collections 6, 8 and 26 were found. (collections 15, 28, 31, 37 and 40 from the principal tomb No. 2, 4 were joined to them).

V. Censers (Incense Burners):

Artifact 65 B 24/0

A clay censer 7.5 cm. by 5.5 cm., with missing part from the rim. It stands on four prominent clods, with traces of burning incense over there. It is made of local green clay, and painted red with black lines. It was found in the central southern extension from the depth of 95 cm.

Artifact 80 B 24/1

A clay censer 6.4 by 6.4 by 6 cm. with deep geometrical engravings composed of lines forming triangles, clay similar to that of the northern area and Al-Hassa Oasis, and identical with censers of southern Arabia and Al-Fao in technical influence and craft.

A clay censer, with a thin cream coat, red burnt clay with calcic particles and yellow bubbles. A typical feature of local gulf pottery (Dilmun Pottery), four square clods as legs, without prominent corners. It was found in the main tomb No. 22.

VI. Copperware and other Metallic Artifacts:

Collection 9 B 24

Two copper earrings with knitted ornament and consisted of a copper button on the upper part, similar to the Al-Aba'a embroidery, still used at present[1]. They were found in the exterior debris of mound B-24. One of them was broken.(1)

Collection 19 B 24

Two iron arrow points, one of them is 7 cm. long and 1.5 cm. wide, while the other is 6.5 cm. long and 1 cm. wide.

Collection 24 B 24

This collection includes two bracelets made of an alloy composed of copper, lead and zinc, in a good condition, and a small copper anklet.

Collection 27 B 24/1

It includes two bracelets for a child and two pieces of rusted iron.

Artifact 42 B 24/1

A copper ring, diameter 2 cm. rusted and other copper fragments from a copper nail.

Artifact 7/A/7

A copper ring with 1.5 cm. diameter found in the exterior debris at the western side from the depth of 135 cm. outside the main tomb.

(1) Women used to add such ornaments to their Aba'at and so it is possible that these two artifacts (earrings) were also used for the same purpose.

Artifact 20/A/7

Three fragments from a metallic bracelet, perhaps made of an alloy composed of copper, zinc and lead.

Artifact 21/A/7

A copper bracelet, perhaps was used as, an anklet, because of its large diameter 8.3 cm. with a part of it missing.

Artifact 7/A/8/2

A small copper arrow point and three fragments from a copper thin pin which was probably used, as a "Mirwad" (eye-pencil) or as hair pin. The copper point is 5.5 cm. long and 1.5 cm. wide.

Artifact 18/A/8

An iron circle, eroded by rust, found near skeletal remains of a camel at the depth of 2 m. in the exterior debris near the crumbled tomb structure, perhaps used for fastening animals or for fixing (diameter 8 cm. 1.5 - 1.8 cm. thick).

VII. Pottery and Stone Vessels:

The earthenware of the Dhahran south archaeological site enjoy certain local specifications and characteristics, with other specifications and characteristics in common with types which were used throughout various historical periods. Pottery sherds were found in various mounds of Dhahran South site which belong to the early age of dynasties, and pottery vessels, which belong to the early Dilmun type, were also found, similar to those found in early layer of Barbar temple during the second season 1404/1984. An upper part including rim of a pottery vessel, similar to those of Jumdat Nasr's age was found in tomb B - 21/C.

Pottery sherds were also found, under the above mentioned finds, which belong to the period of early dynasties representing the last layer. (Al-Badr, Sa'adown, pp. 25-27).(**)

Exterior debris suggest previous damage or frequent use of the tomb. All sherds were gathered into colletions, hoping that precise classification studies and restoration works, would be carried out to produce distinct patterns that are typical of the area, and perhaps would add new patterns to those represented by complete pottery vessels such as cylindrical, pear-shaped, cup-shaped, curled and spherical forms, in addition to bowls and other kinds. Moreover, all pottery sherds found in the upper probes of all mounds are consistent with each other, suggesting early settlement and continuous inhabitation in this area. The pottery sherds and complete vessels are similar, also to certain pottery vessels found at various sites of the Eastern Province, such as Tarout Island, Thaj, and the burial area at Abqiq and other sites of the Kingdom, such as Al-Fao and Nejran. They are also similar to Nabatean Pottery and other ancient types of pottery, such as Barbar and those of Hamad town and the linked tombs to the left of Al-Jessr. (Ibrahim, Muawa, 1982).(**)

Artifact 23 B 24/9

A cup of black steatite stone, complete and in good condition, with no decoration, 4.5 cm. high, the diameter of the mouth 6.8 cm. the diameter of the base 5 cm., .5 cm. thick.

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*Al-Badr, Dr. Suleiman Sa'adown, "The Arab Gulf Area during the Third and Fourth Millennia".
Fig. 1: Samples of Potteries and Decoration of Jumdat Nasr Culture, p. 25.
Fig. 2: Samples of Potteries and Decoration from The Arab Gulf, p. 27.

**Ibrahim, Dr. Mu'awa, "Arab Expedition Excavation at Sar Al-Jesser Sites, 1977-1979" published by the Ministry of Information in Bahrain, 1982.

Artifact 23 B 24/9

A cup of black steatite stone, complete and in good condition, with no decoration, 4.5 cm. high, the diameter of the mouth 6.8 cm. the diameter of the base 5 cm., .5 cm. thick.

Artifact 26/B 24/11

A small, complete and thin pottery vessel with a broken handle, grey, with deeply incised lines in the middle, outcurved rim, pear-shaped, 7.5 cm. diameter of the rim 4 cm. and 6.5 cm. in the middle.

Artifact 36/B 24/12

A skillfully made cup-shaped thin pottery vessel with some missing parts, partly painted black on the upper part and red but the paint coat is worn-out in the interior side. The clay is mixed with sand, making it feeble. 8.5 cm. high, diameter of the rim 9 cm. and the base 3 cm. similar to pattern (av. 21, plate 51).

Artifact 56/B 24/1

A pottery jar, with one handle and presumably made of local clay. The upper part is glazed in turquoise colour. The rim base and handle, all were made, separately and were joint together. It is similar to the pottery of Tarout Island, Thaj and to certain artifacts found in Al-Fao and in Bahrain. 32 cm. high, diameter 18 cm. the base 9.5 cm.

Artifact 59/B 24/1

A pottery jar, with a missing handle and a part from its rim dark brown, painted with a light brown coat, narrow mouth, deeply incised circular lines, 20-25 cm. high, base 7.5 cm., diameter 14.5 cm., the handle 9 cm. high, the diameter of the rim about 8.5 cm.

Artifact 60/B 24/12

A part of a stone vessel, made of green stetite stone, decorated with deep geometrical designs consisting of circles and parallel lines, spout and mouth, showing traces of restoration process and copper wires, identical with stone vessels found in Bahrain and parts of the Eastern Province, such as Tarout Island.

Artifact 122 B 24/1

A pear-shaped pottery jar, identical with vessels found in Bahrain, made of green clay, possibly of local kind, 17 cm. high, the diameter of the mouth 8.2 cm.

Artifact 11 B 28

A part of pottery cup, representing half of the complete vessel, with complete base, made of think clay, painted red and decorated with black paint, very thin mouth, identical with the pattern (U.15607) which was found in the big tombs of Bahrain dated to late Babylonian period. (A new Babylonian burial mound, Bahrain).[2]

Artifact 19 B 28

Semi-complete pottery jar, with a part missing from the rim, identical with Bahrain vessels (type No. 5, fig. 37, p. 146, Arab Expedition Excavation), 15.5 cm. high, diameter of the mouth 10 cm. diameter of the jar 12.5 cm. (A new Babylonian Burial mound Bahrain, pl. 20).[3]

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(2) (3) A neo-Babylonian Burial from Bahrain.

Artifact 20 B 28

A spherical pottery vessel without upper part made of red clay, thin and well-made. It is difficult to compare it with complete vessels, being without a rim which usually gives the vessel its actual form, diameter 10.5 cm.

Artifact 21 B 28 (Pl. 19)

A cylindrical jar with a pointed base, painted crimson red, excurved rim, with parallel lines engraved around the neck as decoration, 24.5 cm. high, diameter of the top 10.5 cm. diameter 14 cm., identical with type No. 2 fig. 35, (A new Babylonian Burial mound, Bahrain 144, pl. 21).[(4)]

Artifact 36 B 28 (Pl. 20)

A pottery cup, the base stands on four clods in the form of a square base, 6.5 cm. high, diameter of the mouth 6.1 cm., diameter of the jar 7.5 cm., identical with type No. (U.18624) which was found in the big tombs of Bahrain, dated to late Babylonian period (A new Babylonian Burial mound, pl. 23).[(5)]

Artifact 27 B 28 (Pl. 20)

A pottery jar, curled surface, red clay mixed with calcic particles ridged and showing yellow bubbles due to firing typical of Gulf pottery known as Dilmun pottery, in type and kind of clay used, parallels were found in early layer of BARBAR temple, identical with pattern 14, fig. 36, (Arab Expedition Excavation, 145) diameter of the rim 11 cm., 22 cm. high, the diameter of the Jar 18 cm. (pl. 22).[(6)]

Artifact 7 B 29

A complete pottery vessel, made of thin clay, thin excurved rim, pear-shaped, red clay, decorated with geometrical designs in black, 8 cm. high, 9 cm. diameter, the mouth 7 cm., identical with pattern 9. fig. 40, 149 (UEV IV). Similarity of vessels in Dhahran and those of Iraq suggests cultural links between these two areas a long time ago. (Arab Expedition, pl. 23).[(7)]

Artifact 11 B 29

A huge broken jar, parts were put together, with some sherds lost, dark reddish orange colour, curled surface (ridged jar) 41 cm. high, rim 14 cm. diameter, the diameter of the jar 29 cm.

Artifact 12 B 29

A pottery jar of a medium-size, made of clay mixed with sand, painted with semi-glazed coat, crimson red, identical with pattern 4, fig. 39, p. 148, 24 cm. high, diameter 17 cm., the diameter of the rim 10.5 cm.[(8)]

Artifact 13 B 29

A cylindrical jar with a tapered base, made of red clay, painted with a thin cream coat, identical with cylindrical patterns of Jumdat Nassr in form, although without any decoration, their form similar to pattern JN 70, and pattern B, fig. 13 from the pottery found in Hafit, Oman, the mouth 10 cm. diameter, diameter in the middle 11.5 cm. (Journal of Oman studies, Vol. 1, 1975, pl. 24)

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(4) Arab Expedition, Saar-Jesser site.

(5) A new-Babylonian Burial from Bahrain.

(6) (7) "Arab Expedition Excavations" and "Ur" Excavation.

(8) "Arab Expedition Excavations", Bahrain, 1977-79.

(9) "Journal of Oman Studies", Vol. I, 1975.

Artifact 14 B 29 (Pl. 22)

A small pottery cup, decorated with a black line around rim on both exterior and interior sides, with a projecting base, made of thin clay, painted with a thin coat, identical in form with pattern (V 15537 EV) found in Iraq referred to in "Early Periods in Iraq", 4.2 cm. high, the mouth 4.6 cm. the base 4.2 cm. (The Early Period in Iraq V.IV, pl. 26).[10]

Artifact 15 B 29 (Pl. 22)

A small pottery cup made of levigated thin red clay mixed with fine sand, decorated with geometrical designs in black around the upper rim. Three funerary cups were found in the small tombs, 6 cm. high, the mouth 6.5 cm., the diameter of the jar 7 cm. (The Early period in Iraq).[11]

Artifact 18/B 29 (Pl. 21)

A broken pottery jar, with missing parts, available parts were identical with pattern 7, fig. 39, light brown, colour. (Arab Expedition Excavation, Bahrain, 1977-79, 149, pl. 25).[12]

Artifact 24/B/29

A pottery vessel in the form of a small ink pot, with a feeble mouth, with some fragments of the body and neck missing, inflated in the middle, excurved rim 5 cm. high, the average diameter 7.5 cm., the mouth 3.5 cm. from outside, identical with pattern (V. 19350) (The Early Excavation in Iraq, 1977-79, pl. 25).[13]

Artifact 11/A/7

A thin pottery dish, painted cream, identical with dishes of Thaj, contemporary to Greek period, restored, a part from the rim and body missing, 6 cm. high, the mouth 15.6 cm., the base 45 cm.

Artifact 3/A/7

A lid, made of gypsum stone,* for a stone vessel. There is a small handle on this lid, 6 cm. diameter, 1.5 cm. thick, found in the exterior debris 190 cm. deep at the western side of the mound.

Artifact 33/A/8/A

A complete cylindrical vessel with two handles in the upper part, glazed and painted turquoise, identical with Al-Fao vessels, 13.6 cm. high, the rim 4.8 cm., the diameter of the vessel 6.2 cm. found in the subsidiary tomb No. 4.

Artifact 3/A/9/1

An ordinary complete pottery cup made of red clay, with flat base without projection, made of Dilmun clay, found in probe B of the subsidiary tomb No. 1, the rim 7 cm., 6.7 cm. high, diameter 8.2 cm., 4.5 mm. thick.

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(10) "The early periods in Iraq" V.IV.

(11) "Arab Expedition Excavations", Bahrain, 1977-79.

(12) "Ur Excavations" V.IV The Early Excavation 1977-79, Excavations in Iraq.

(13) The Early Excavation in Iraq, pl. 25.

*(This kind of stone was used for making stone vessels, as it was less expensive and required less labour than steatite stone. We think, without doubt, that these vessels were locally-made, as local raw materials were available near Dhahran area. This stone is of the same kind as limestone).

Artifact 4/A/9/

A half part of a small pear-shaped jar with a base identical with pattern No. 10, fig, 40, p. 149, ("Arab Expedition Excavations") made of red clay, mixed with particles of calcium oxides and sand, coarse and not well-fired, measurements not possible as it is not complete, found in the subsidiary tomb No. 2 (Pl. 22).

Artifact 6/A/9/4

A thin complete pottery cup made of levigated clay, painted very light red design in the form of parallel stripes, flat base, inflated in the middle, 6.9 cm. high, 9 cm. diameter, the mouth 7.8 cm., .35 cm. thick, found from the depth of 15 cm. in the subsidiary tomb No. 4.

Artifact 7/A/9/4

A complete pear-shaped jar, with green paste, identical with pattern 14, fig. 41, p. 150, found in the subsidiary tomb no. 4, probe B, 12 cm. deep, the rim 9 cm., 13.3 cm. high, 12.5 cm. diameter (Arab Expedition Excavations, Bahrain, 1977-79)(14).

Artifact 2/A/10/2

A small pomegranate-shaped vessel, dark colour, made of coarse clay, coated with lime (Calcium oxide), 8.5 cm. high, the mouth 5 m., diameter 8 cm., identical with small pear-shaped pottery vessels of Bahrain, pattern No. 6, fig. 40. (Arab Expedition Excavation, Bahrain, 1977-79, 149)(15).

Artifact 5/A/10/1

A broken complete pear-shaped vessel, worn out, found in the subsidiary tomb No. 1 from the depth of 4 cm. at the western side of the tomb identical with pattern 4, fig. 39. (Arab Expedition Excavation, 148).

Artifact 6/A/10/1

A thin pottery cup, with missing parts, painted with a cream coat at the upper rim, decorated with vertical lines in light red, made of red clay mixed with particles of limestone, flat base, found in the subsidiary tomb No. 1, probe A, 2.5 cm. thick, 6.3 cm. high, the mouth 9 cm.

Artifact 7/A/10/1

A pear-shaped pottery jar, made of coarse clay, painted with a thin deep coat, not decorated, identical with pattern No. 5, fig. 39, 148, diameter 9.5 cm., 9.5 cm. high, the mouth 6.5 cm. (Arab Expedition Excavation, 148)(16).

Conclusion:

The archaeological sites in the Gulf area are often identical, and it is difficult to recognize one site from another in a certain cultural period. This phenomenon of similarity is clear. This intermixing imposed by geographical and economical factors led to the establishment of a unique cultural pattern.

The excavations conducted by the Department of Antiquities and Museums produced scientific results that are very significant to our knowledge of pre-Islamic history of Arabia and the cultural development which took place in this area. Excavations of burial mounds in Dhahran south area showed

(14) (15) "Arab Expedition Excavations", Bahrain, 1977-79.

(16) "Arab Expedition Excavations" in Bahrain 1977-79.

very significant results during first, second and third seasons. Cultural artifacts found in this area would contribute effectively to highlight the sites where these excavations were conducted. Such findings will be the basis for the comparative study of the pre-Islamic civilization in the Arabian Peninsula. Burial mounds of Dhahran south area contain various tombs which represent different burial types and techniques adopted in the Gulf area which was an important part of the ancient world of the East. Through the careful study of these types and techniques, the ancient societies of eastern Arabia and their interaction with adjacent societies will be brought to light, as much interaction had inevitably created a unique character with specific cultural characteristics.

The area of this research is very vast, but we hope that serious productive studies will be concentrated to achieve a better scientific understanding of the knowledge those societies had enjoyed and their daily habits and burial sites. These studies would also focus on excavation findings, contents of tombs, and funeral enclosures, and will find whether such contents or enclosures are indigenous or not. In both cases, the results achieved through such studies will be very significant for the interpretation of pre-Islamic cultural development in eastern Arabia.

The study of the architectural elements of the burial mounds and building techniques would help to understand the ritual practices and to know whether these tombs used to be build in advance. It may be worthmentioning that excavations of the second and third season concentrated on the study of the topography of the exterior debris of the mounds. Sectional plans were drawn for the debris layers in order to show the architectural features and building techniques. Investigation and topographical studies of Bahrain tombs showed that they were built in advance by a group of specialists. (The Report of Arab Expedition to Bahrain, 1977-79).

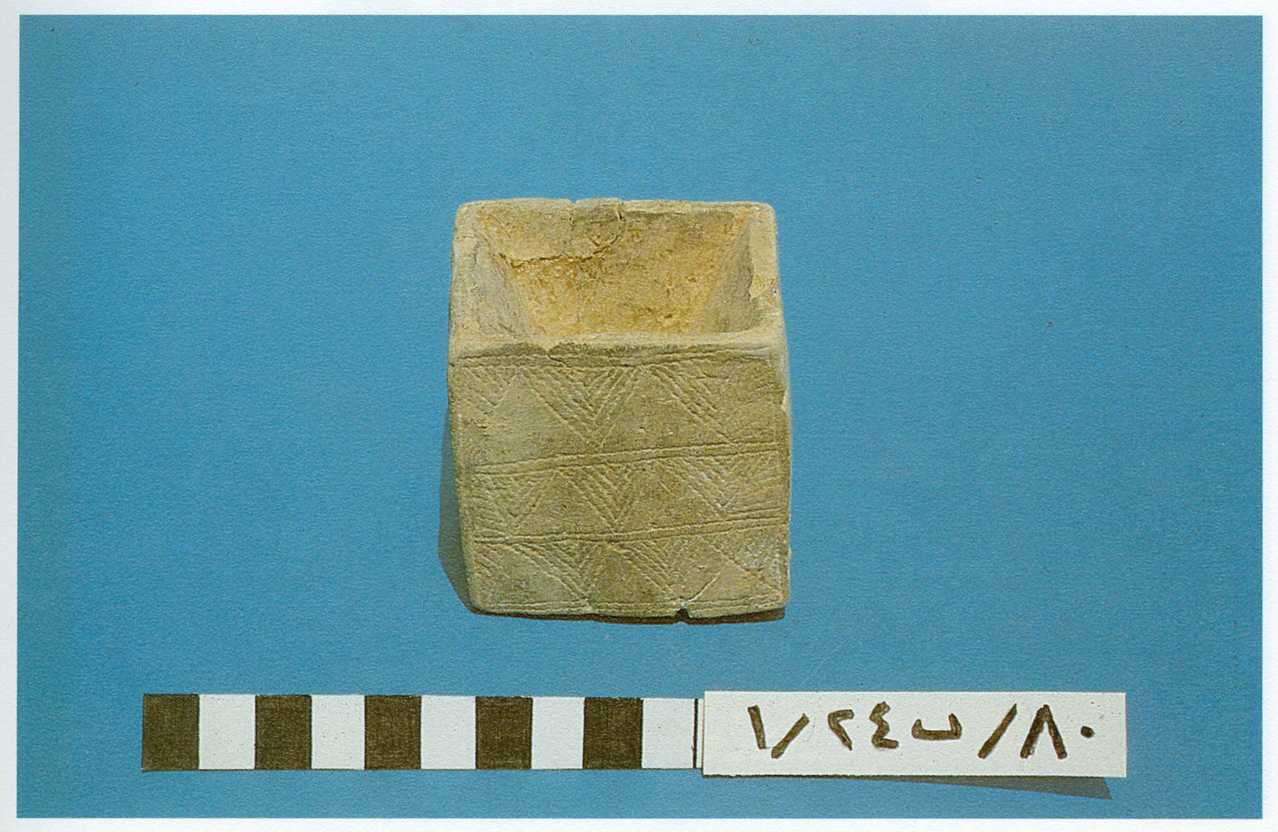
The study of tomb directions revealed that tombs excavated during the three subsequent seasons were of various directions in their degree of obliquity, but their direction was in general east-west. The statistical study of 309 tombs in Bahrain, and all other individual tombs, showed that the average obliquity was 78° north, i.e. eastwards with inclination towards the east 12° north. Most of them were directed to the southeast 130° north i.e. diverted to southeast by 40°. It was known that the sun in June, on June 21st precisely speaking, rises at 40° north, while on December 21st it rises at 130° north so subsidiary tombs were directed between 40° and 130° north, with few exceptions directed beyond these limits. Ancient man used the sun as his guide, and as the sun changes its position according to the seasons of the year, so the direction of those tombs changed. Thus, one can know the season during which a particular tomb was built, i.e. winter, summer, autumn or spring.

Skeletal remains of camels were found in various mounds, and this phenomenon is a unique characteristic of collective large tombs. These remains were found in mounds B-4, B-5, B-17 and A-8, each of which occupied an individual site 210 cm. deep. They date to late period of burial mounds which represent periods of trade prosperity contemporary to Greek and Roman periods, when camels were the basic principal means of local transportation in Arabia between southern Arabia and Syria and Iraq, and from there to Europe. Camels which were called "Desert Boats" served as land transportation means, beside the sailing ships which used to sail in the Arabian Gulf. Camels enjoyed an important status and were highly-esteemed by the inhabitants of those area, including island trade centers, such as Nejran, Jarash, Al-Fao, Thaj and Tayma, and connection points where local trade roads along the eastern coast of Arabia and those bordering Al-Rub' Al-Khali desert from Yebrin and Yamamah meet. Thus, we see that camels in that period of time were more important than commercial ships. Perhaps, a tradition of burying camels when their owners die was adopted and such rituals possibly, took place near the burial place of the owner. Another possibility is that they were offered as common sacrifices, as tombs were used collectively during ancient periods of history. Offering sacrifice by means of burning or by any other way was, perhaps, adopted at that time. This can be verified, if carbon analysis showed simultaneous dates of the layers analysed, although the archaeological artifacts found in those layers do not exceed one millennium B.C. in date.



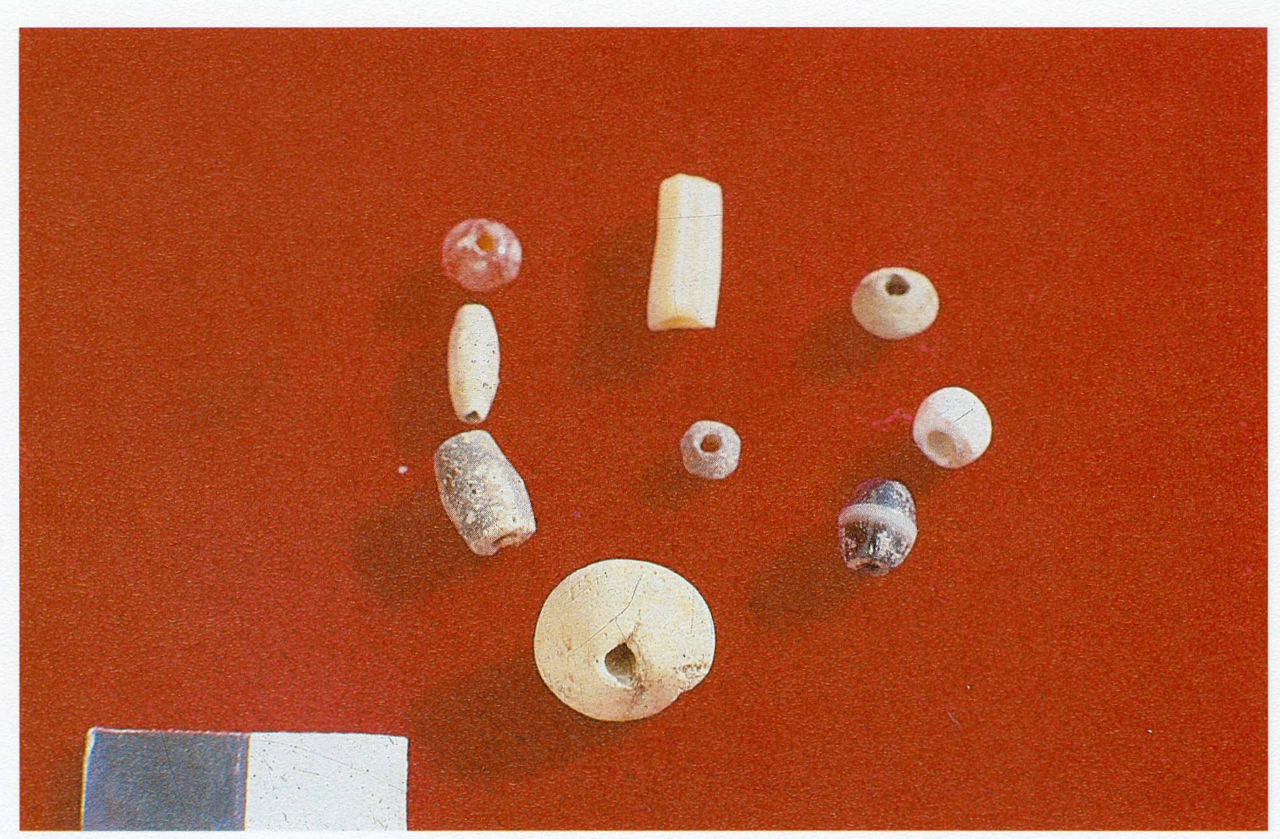
Ivory earrings and some beads.

حلق من العاج مع عدد من الخرز



Incence burner.

مبخرة



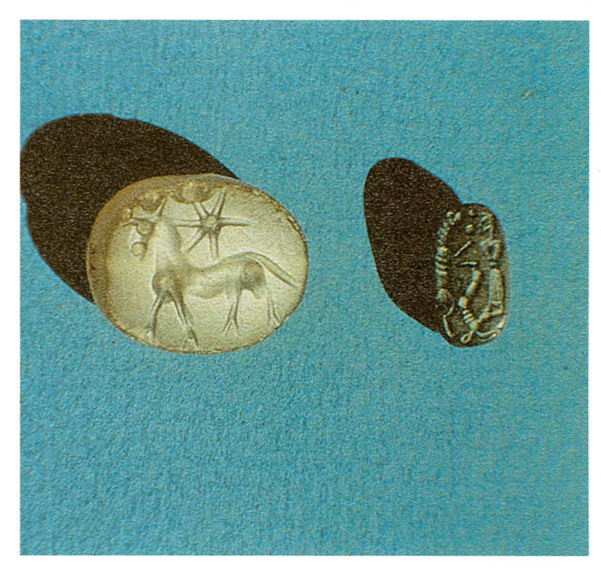
Beads خرز



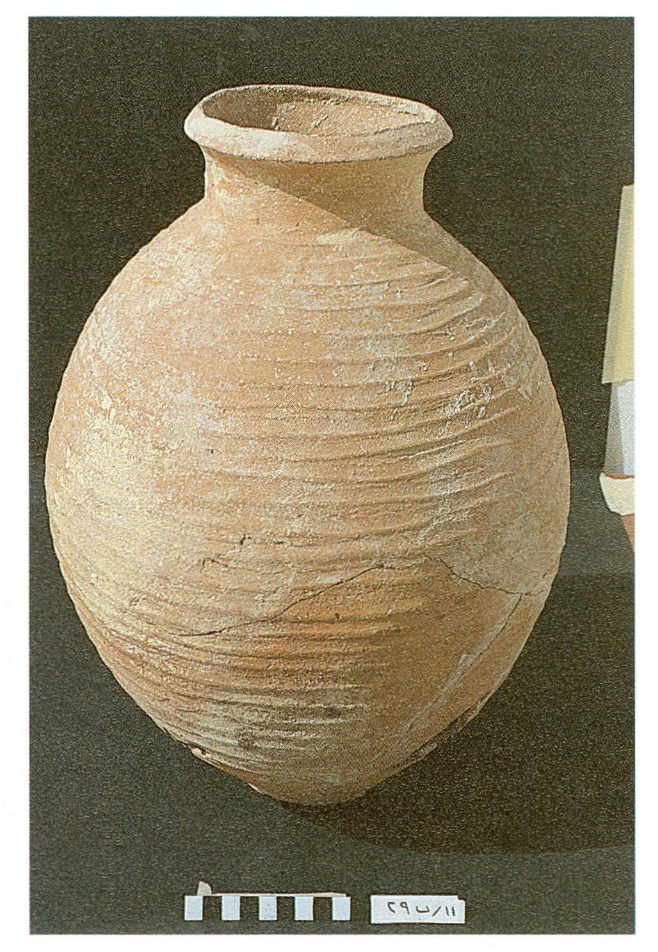
Large ceramic vessel. جرة من الفخار كبيرة




Metal head arrows. رؤوس سهام معدنية



Two seals one with depiction of horse. ختمين منهم الحصان



Completed vessel. آنية فخارية متكاملة



Unexcavated till.

تل قبل الحفر

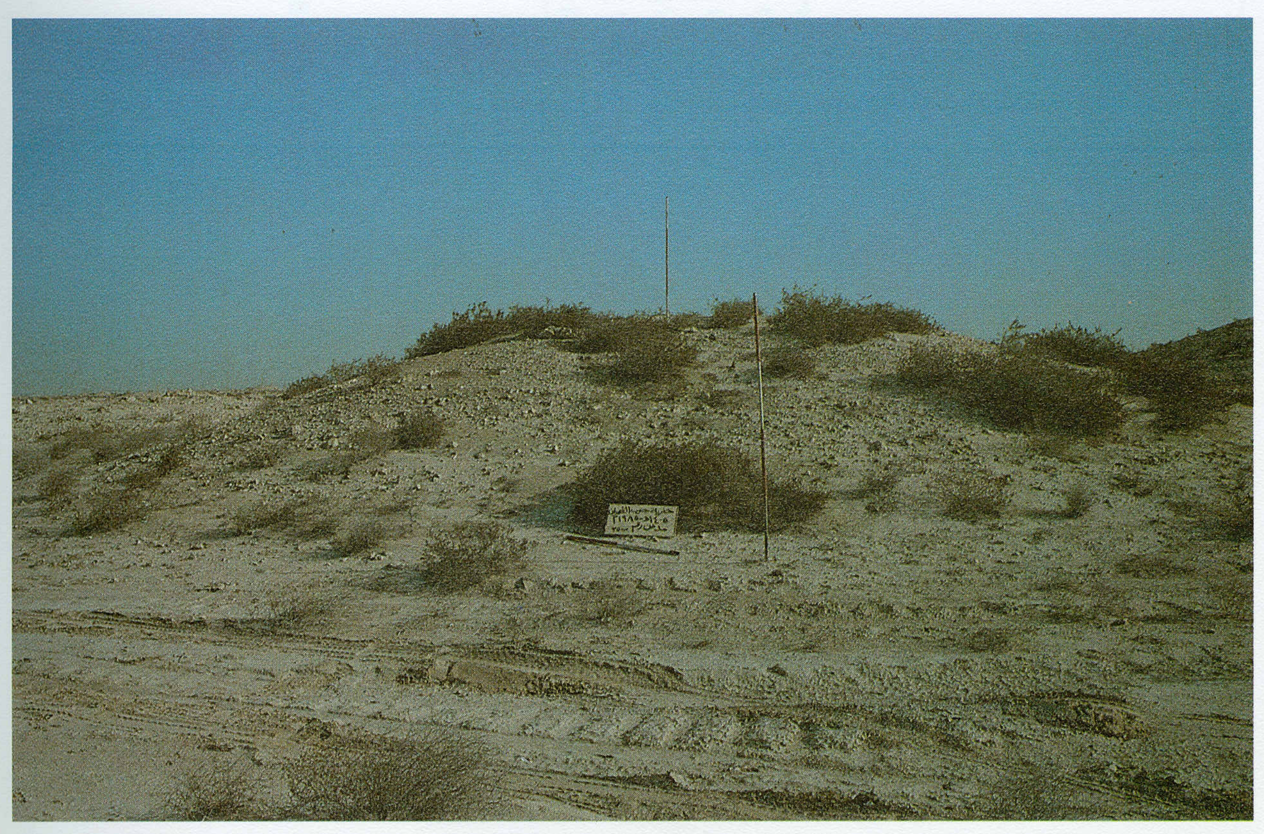


Base of the higher tomb.

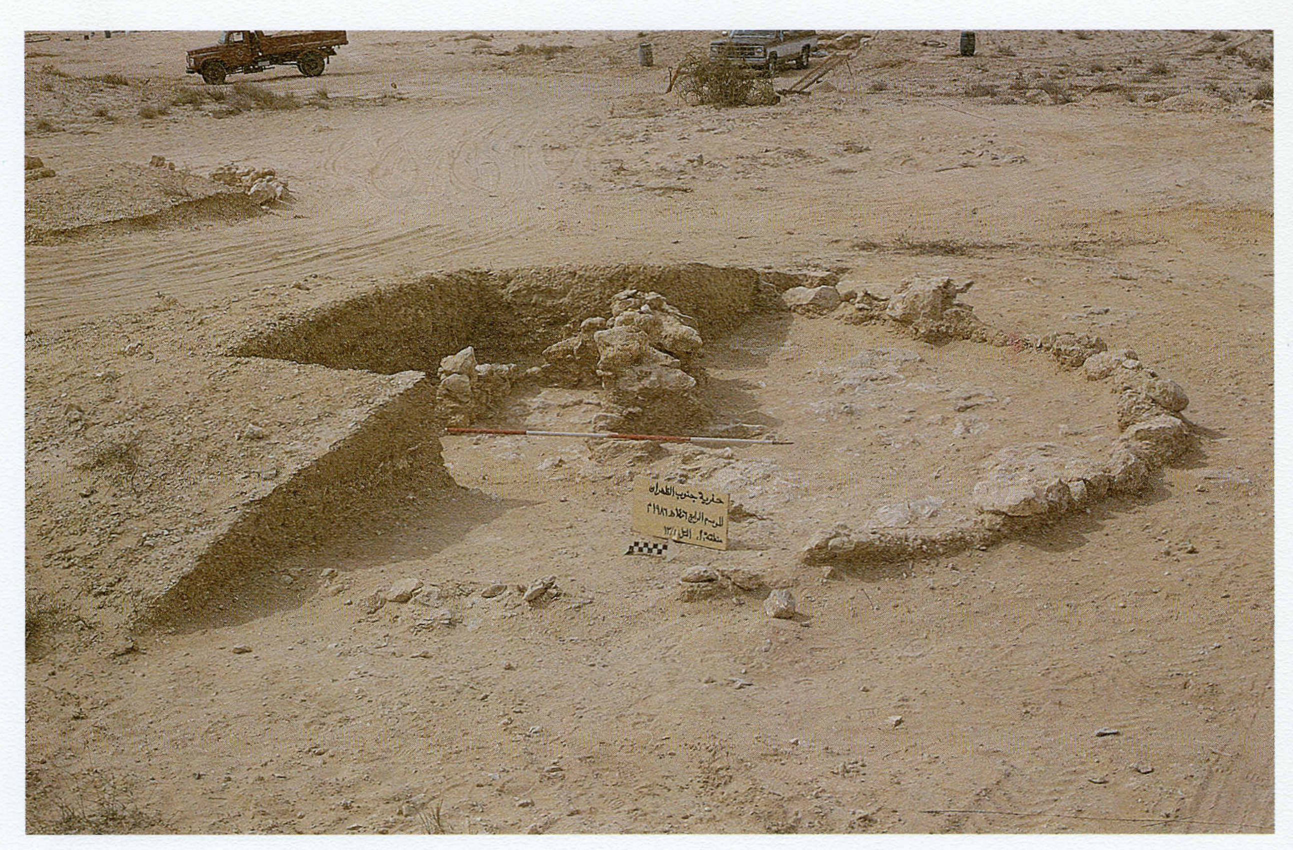
قاعدة أعلى مدفن



Rectangular Tumuli. نموذج مدفن آخر مستطيل



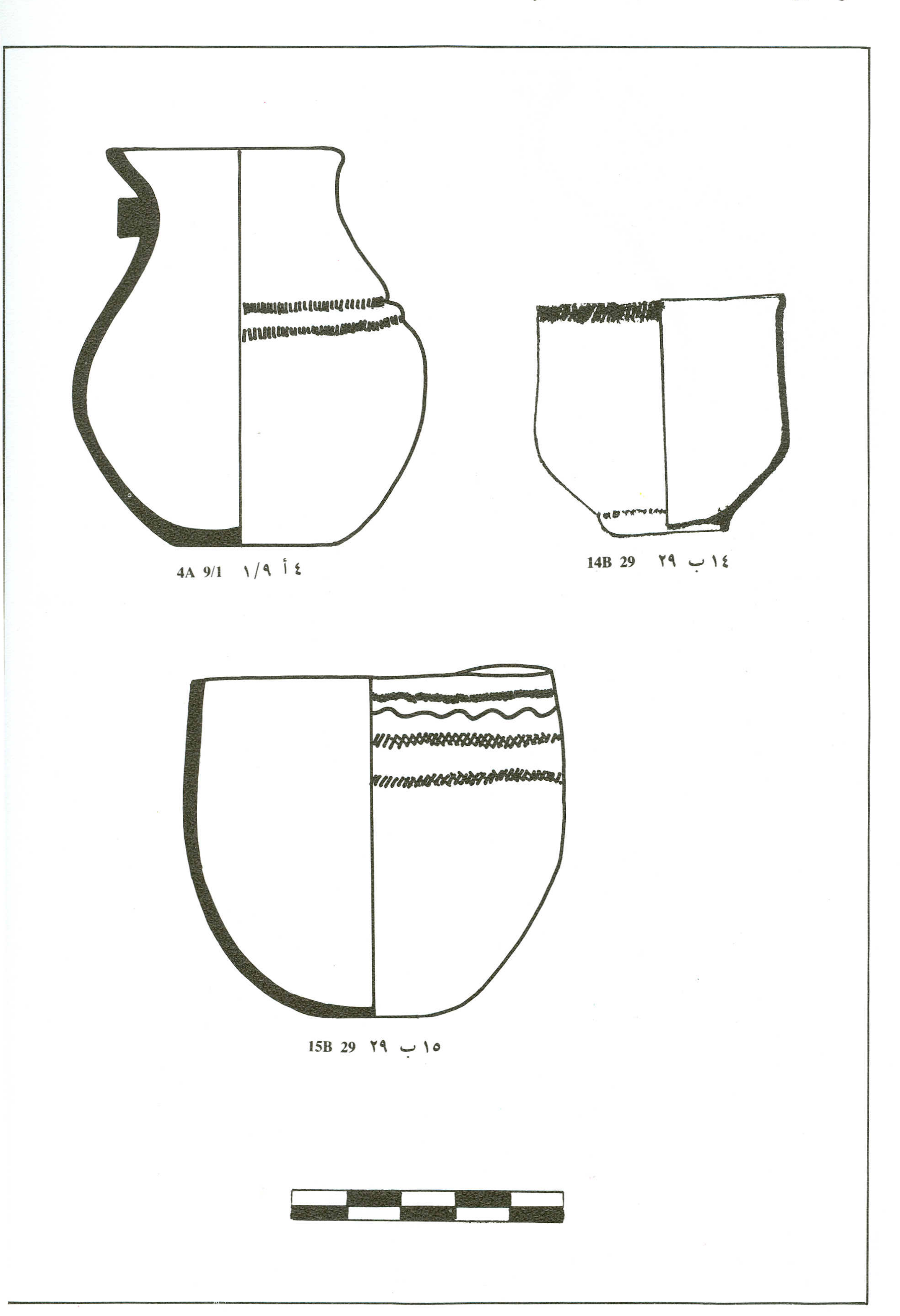
View of the Till. منظر التل

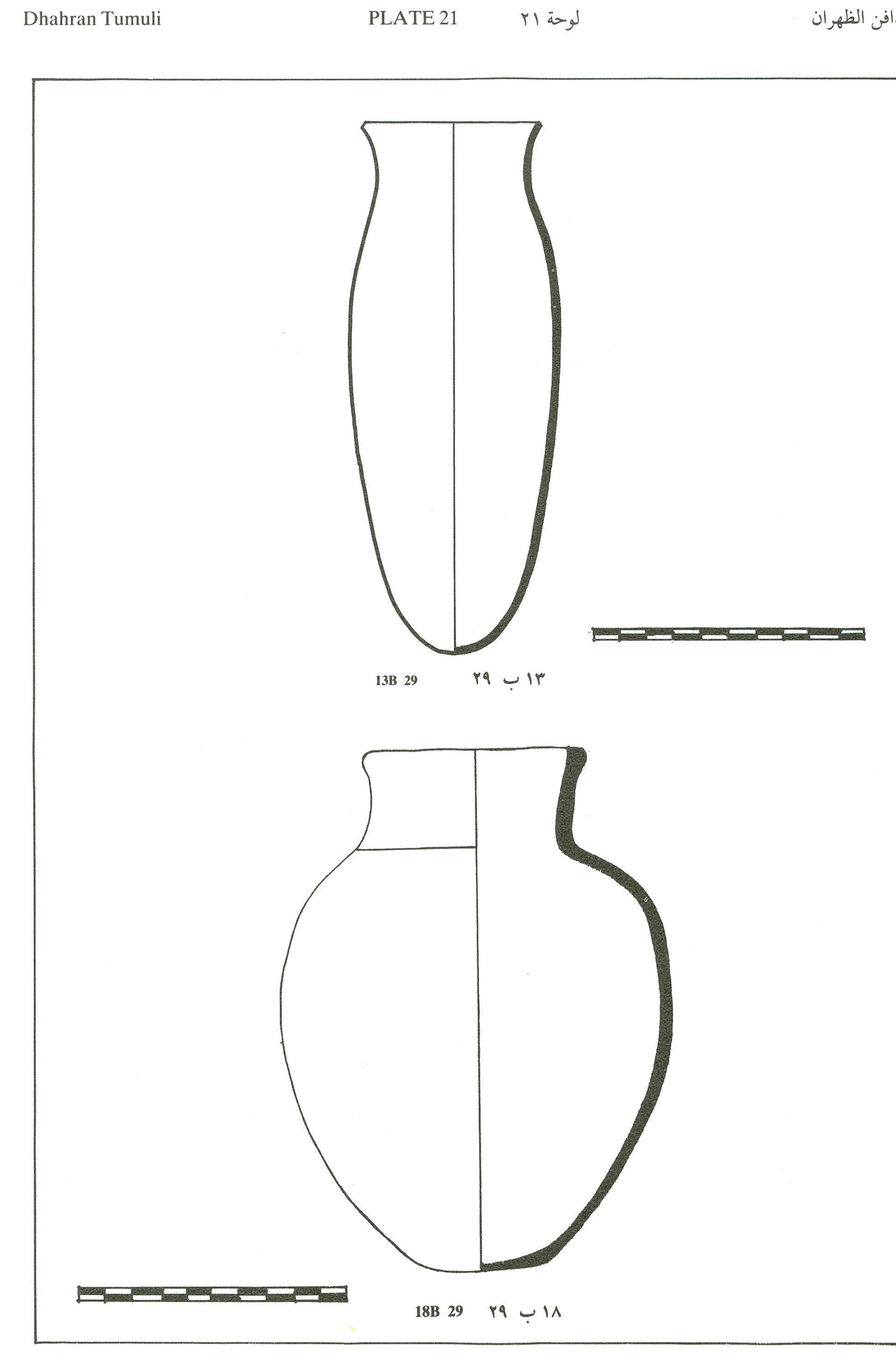


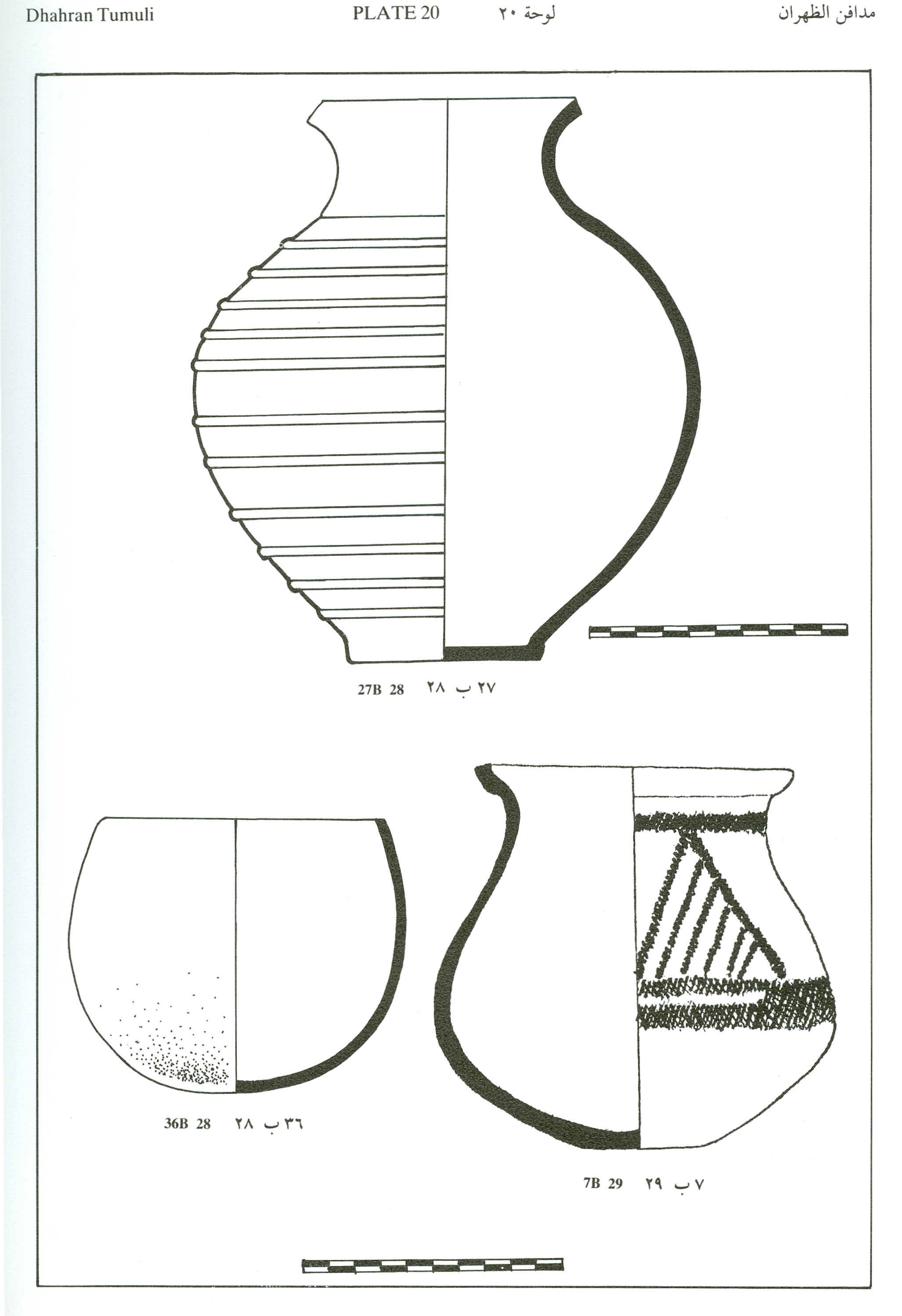
Circular Tumuli. مدفن مستدير

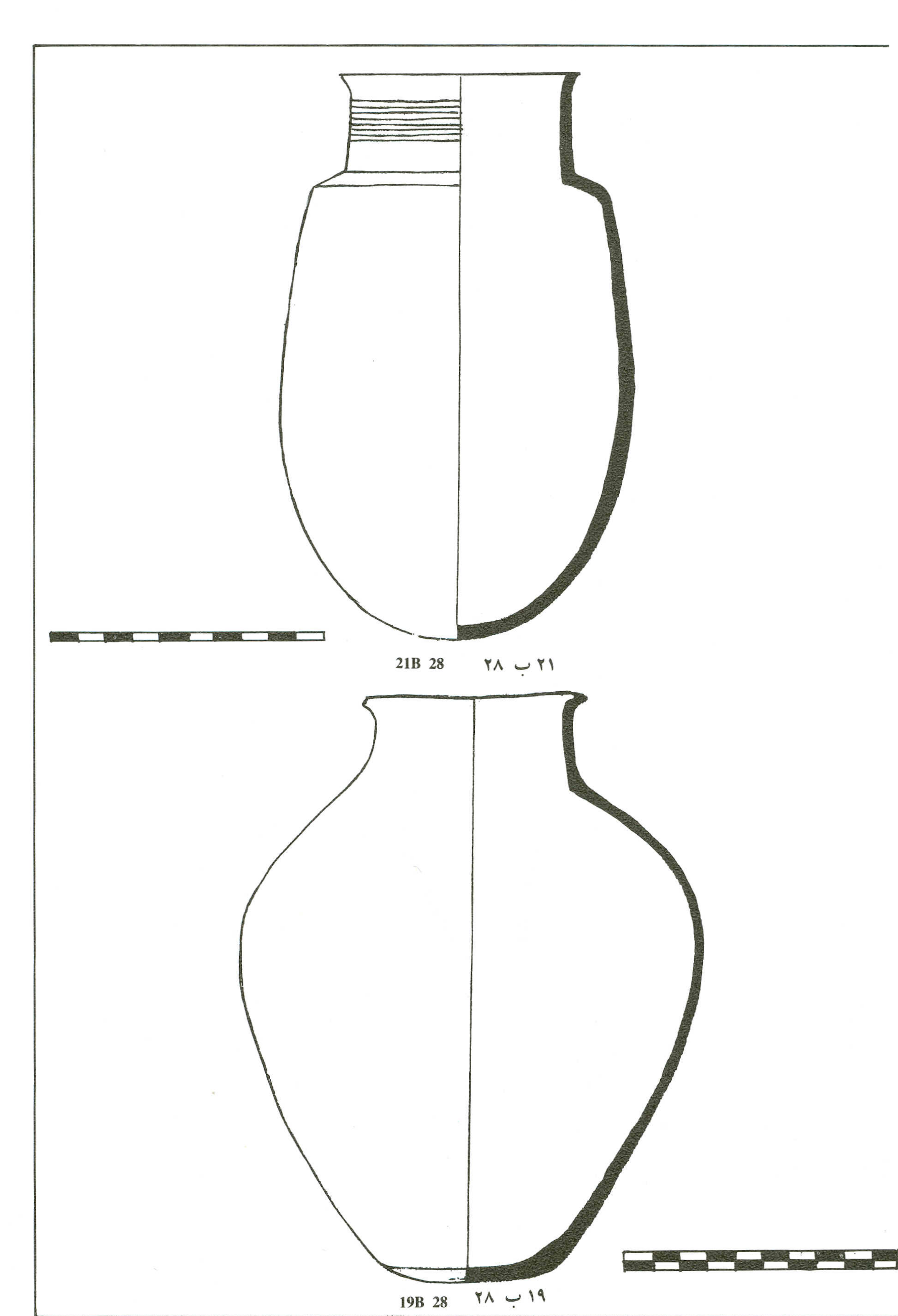


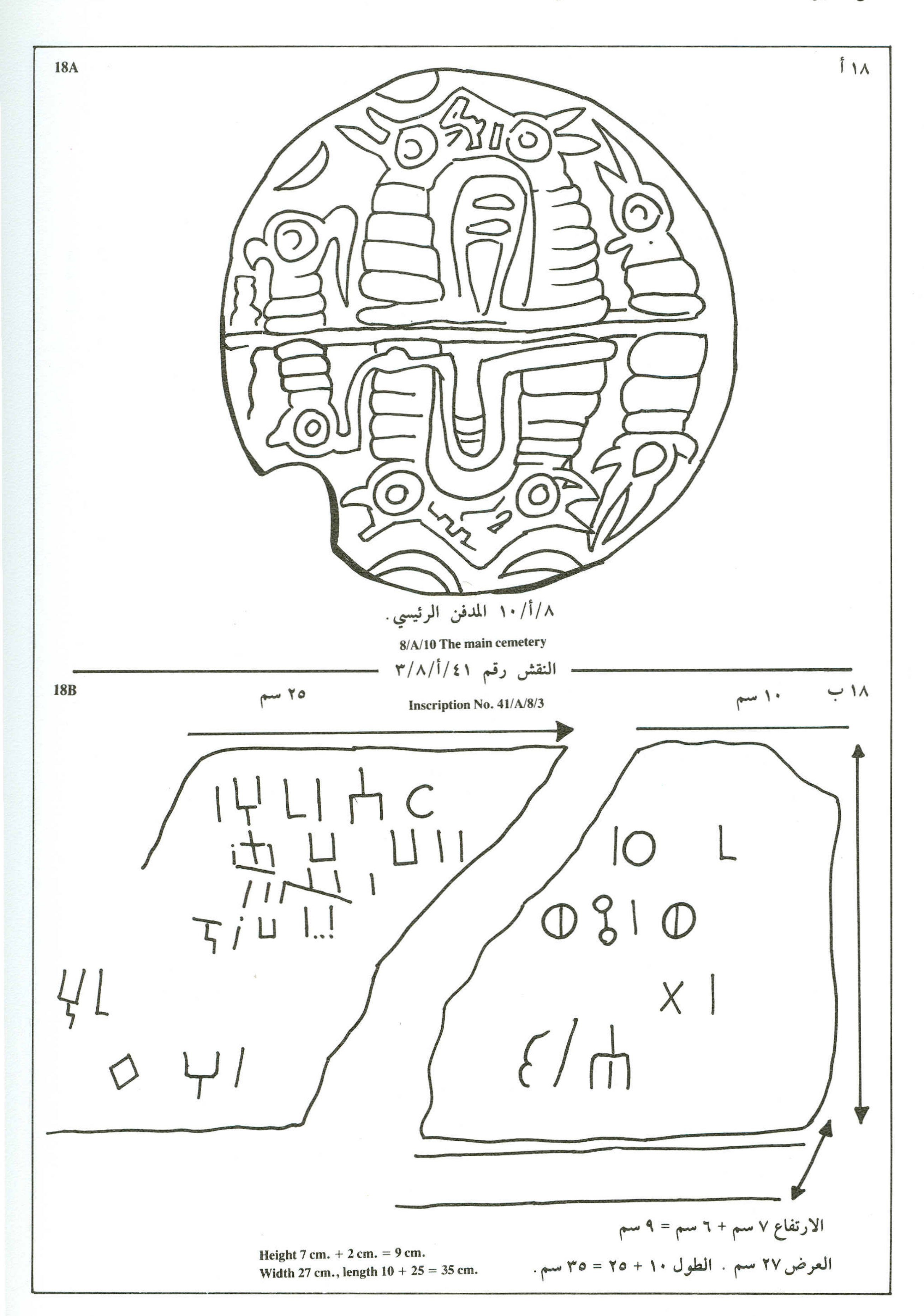
Excavated Tumuli. مدفن بعد الحفر


4A 9/1 ٤أ ٩/١
14B 29 ١٤ب ٢٩
15B 29 ١٥ب ٢٩


13B 29 ١٣ ب ٢٩
18B 29 ١٨ ب ٢٩


27B 28 ٢٧ ب ٢٨
36B 28 ٣٦ ب ٢٨
7B 29 ٧ ب ٢٩


21B 28 ٢١ ب ٢٨
19B 28 ١٩ ب ٢٨



٨/أ/١٠ المدفن الرئيسي.

8/A/10 The main cemetery

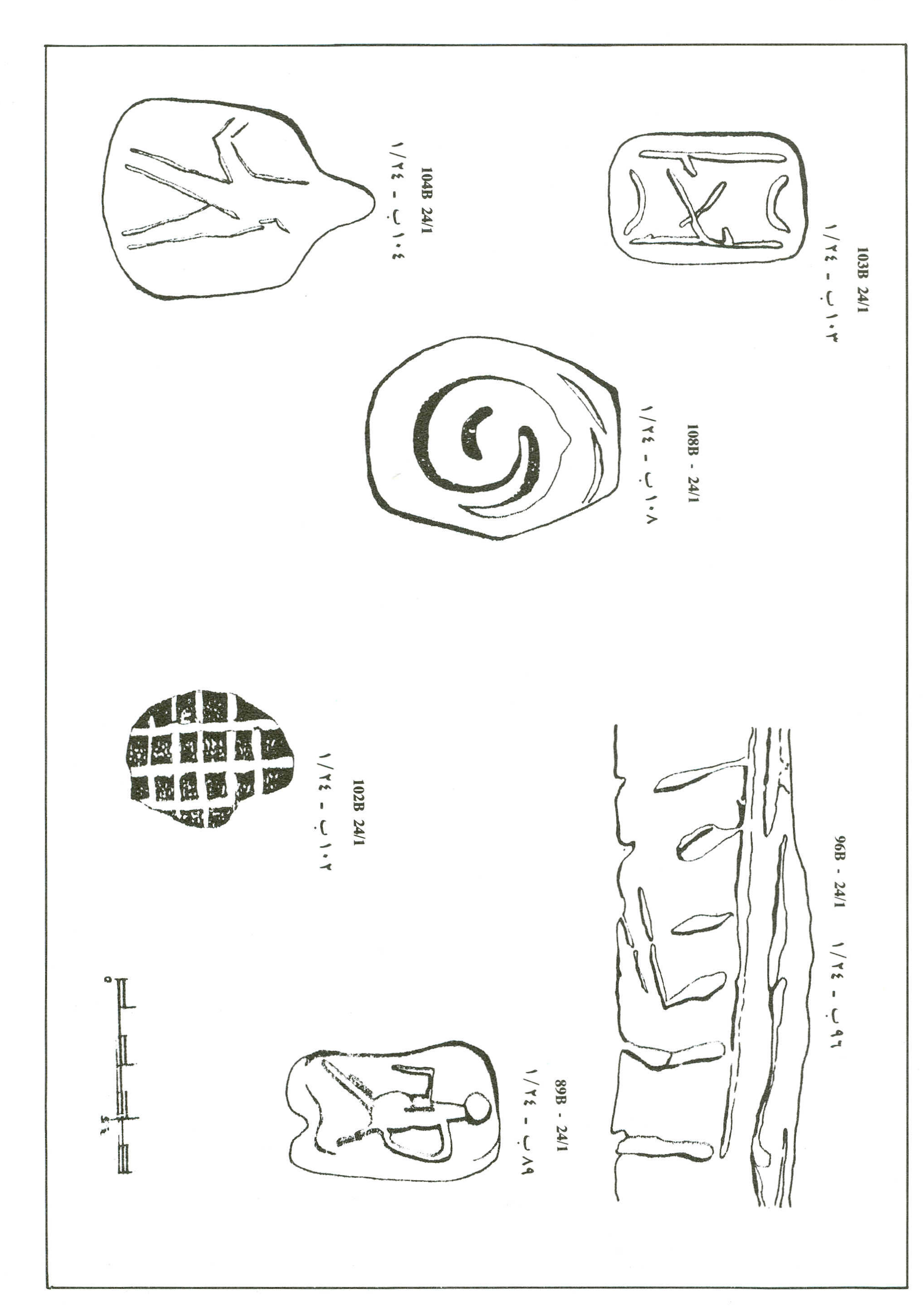
النقش رقم ٤١/أ/٨/٣

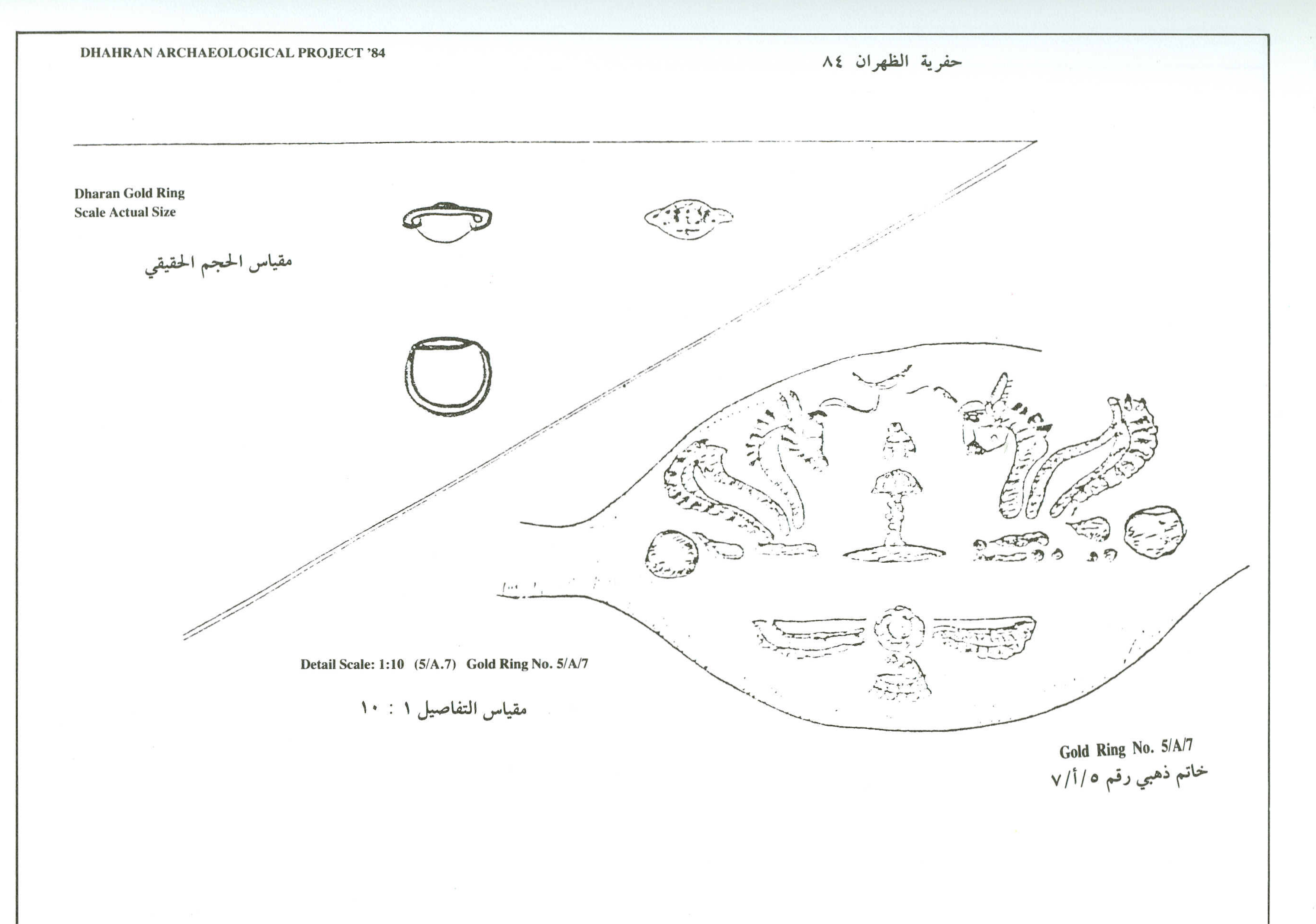
Inscription No. 41/A/8/3

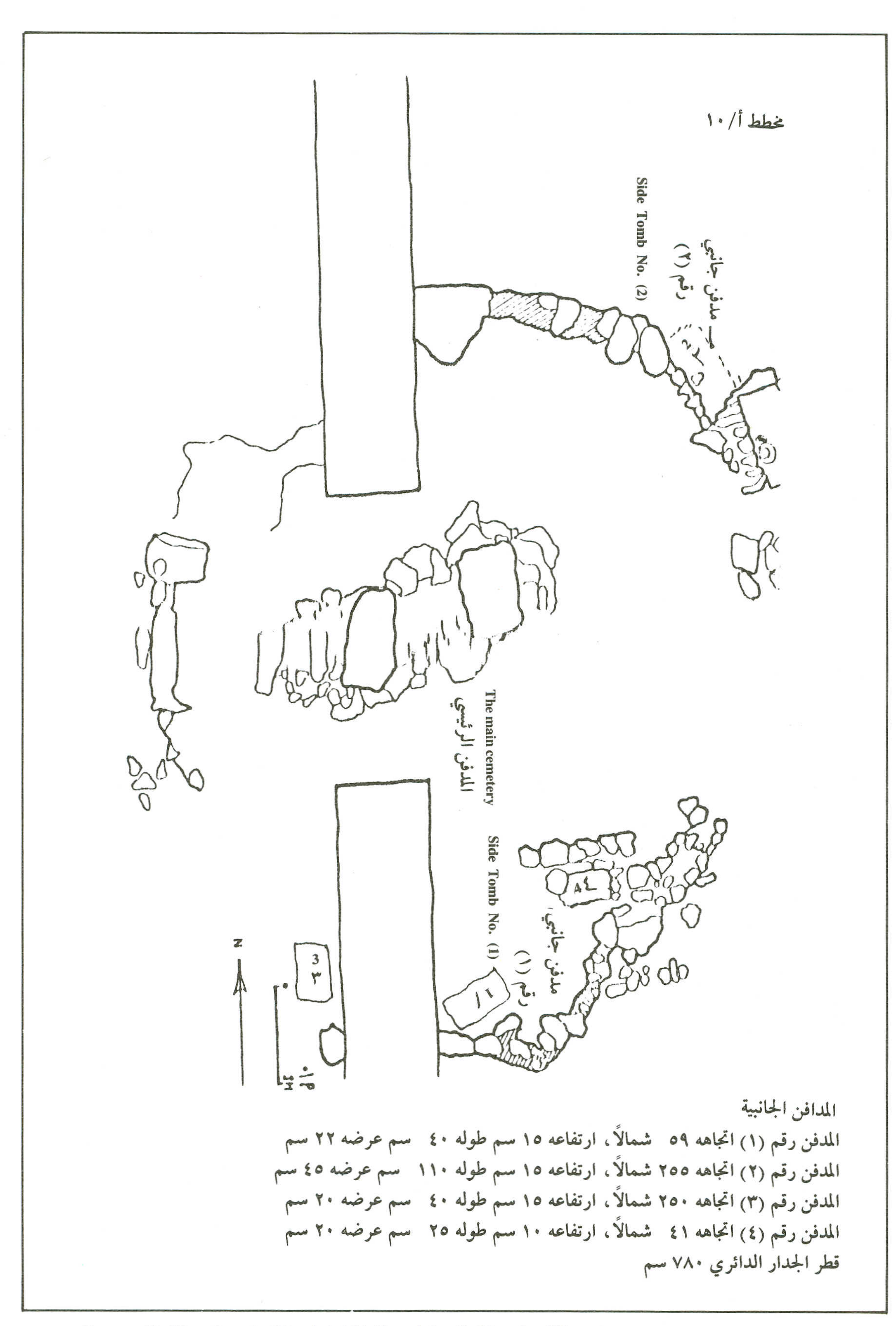
الارتفاع ٧ سم + ٦ سم = ٩ سم

Height 7 cm. + 2 cm. = 9 cm.
Width 27 cm., length 10 + 25 = 35 cm.

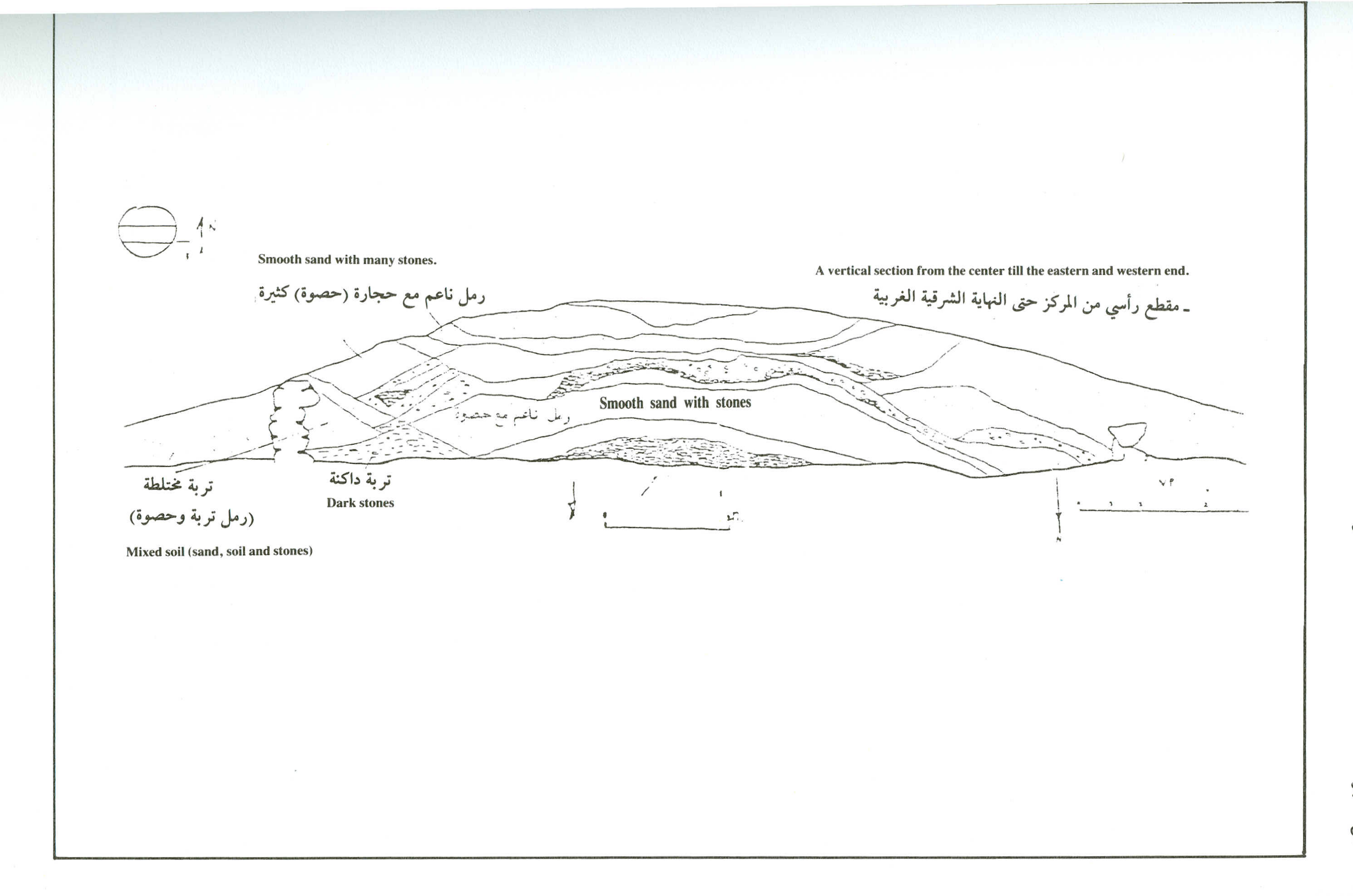
العرض ٢٧ سم . الطول ١٠ + ٢٥ = ٣٥ سم.

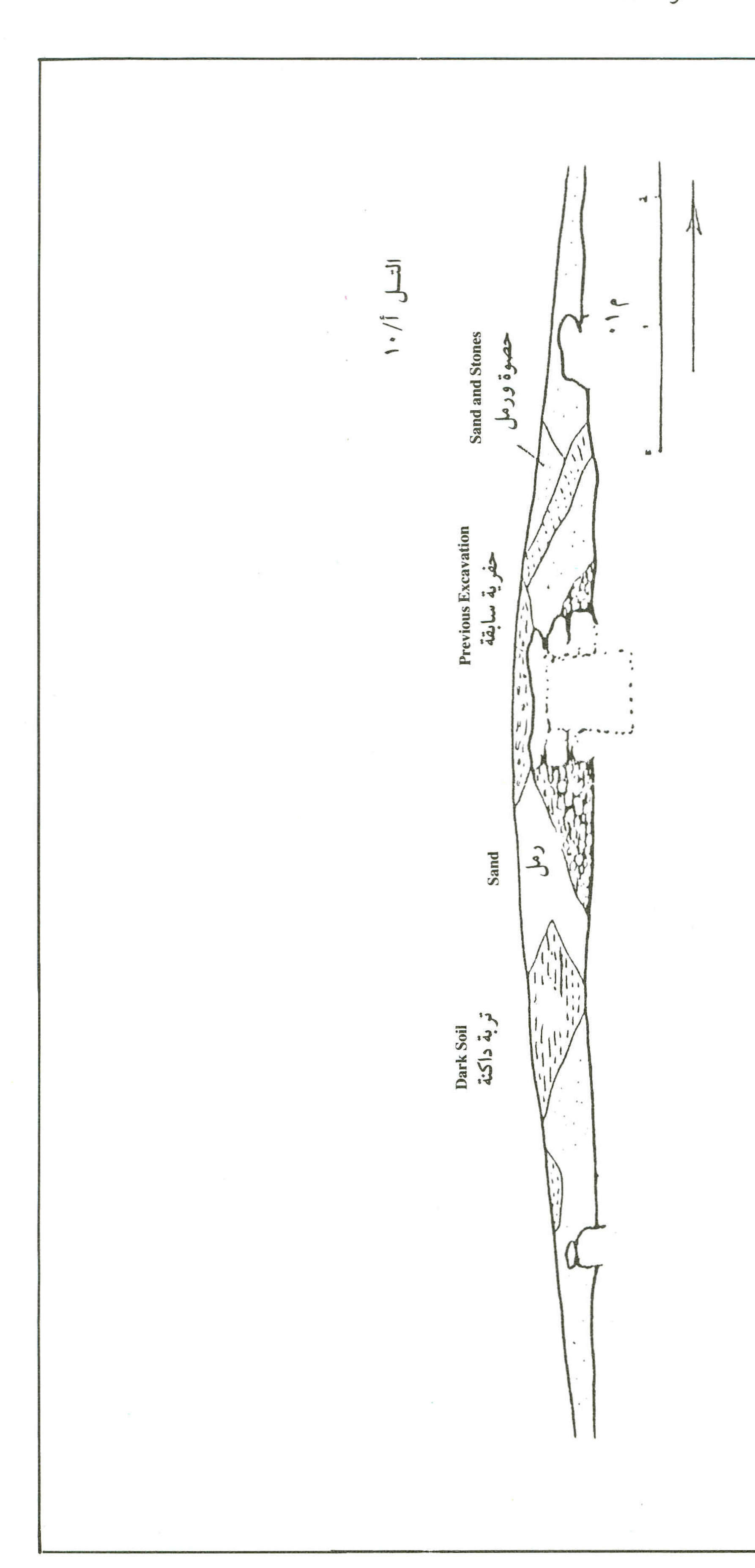

103B 24/1
١٠٣ ب - ٢٤/١
104B 24/1
١٠٤ ب - ٢٤/١
108B - 24/1
١٠٨ ب - ٢٤/١
102B 24/1
١٠٢ ب - ٢٤/١
96B - 24/1
٩٦ ب - ٢٤/١
89B - 24/1
٨٩ ب - ٢٤/١

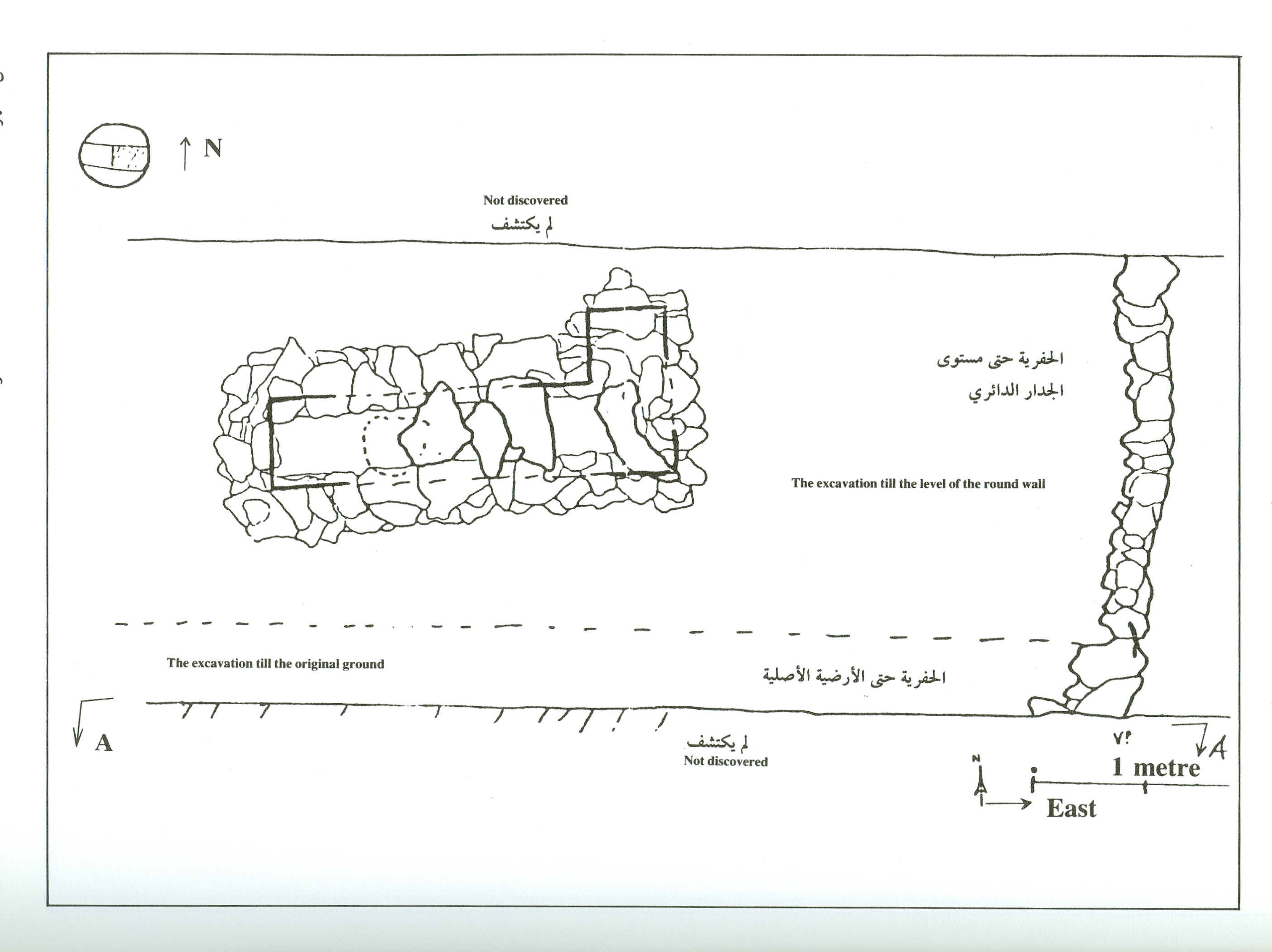

DHAHRAN ARCHAEOLOGICAL PROJECT '84
حفرية الظهران ٨٤
Dharan Gold Ring
Scale Actual Size
مقياس الحجم الحقيقي
Detail Scale: 1:10 (5/A.7) Gold Ring No. 5/A/7
مقياس التفاصيل ١ : ١٠
Gold Ring No. 5/A/7
خاتم ذهبي رقم ٥/أ/٧

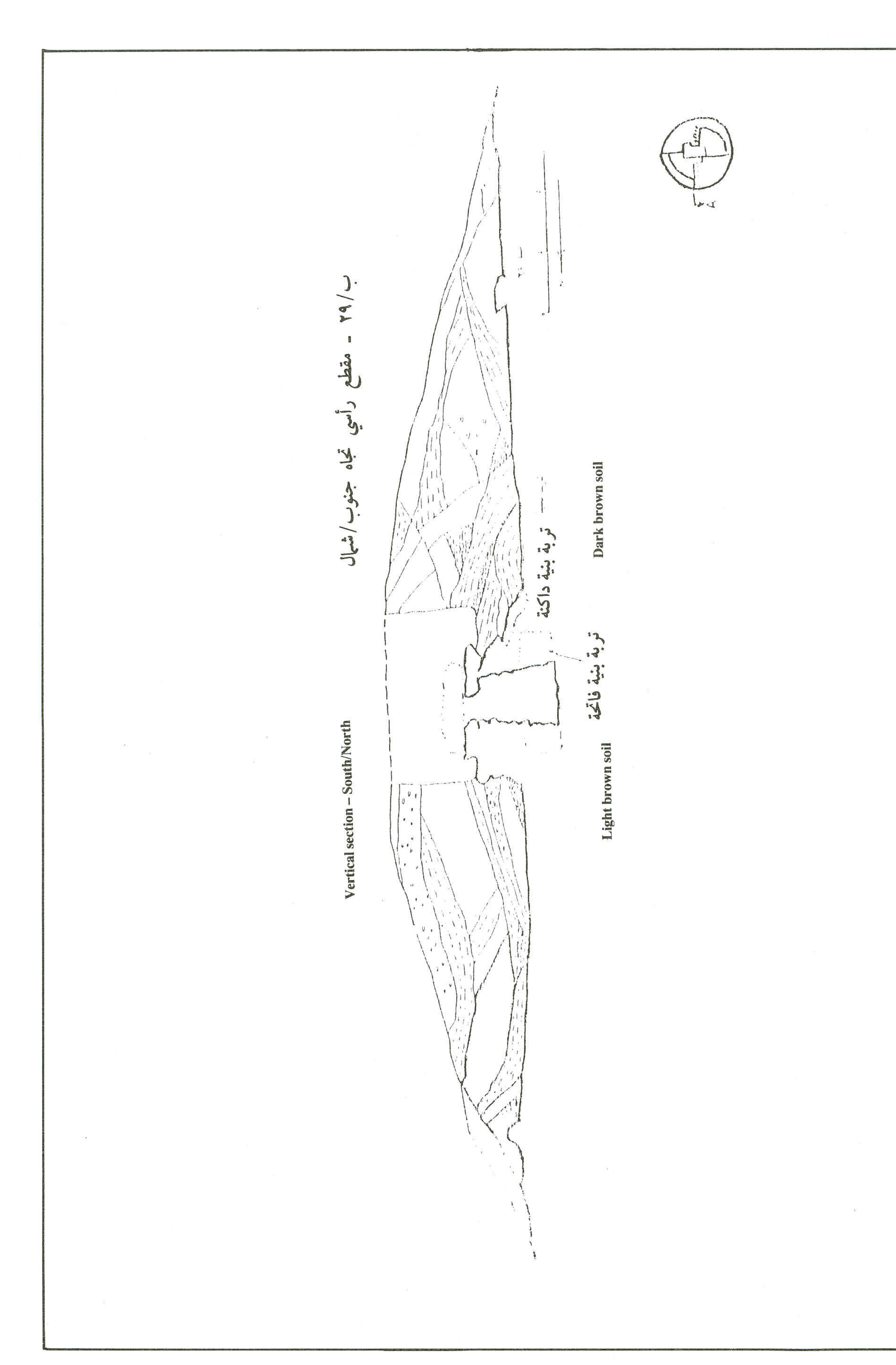


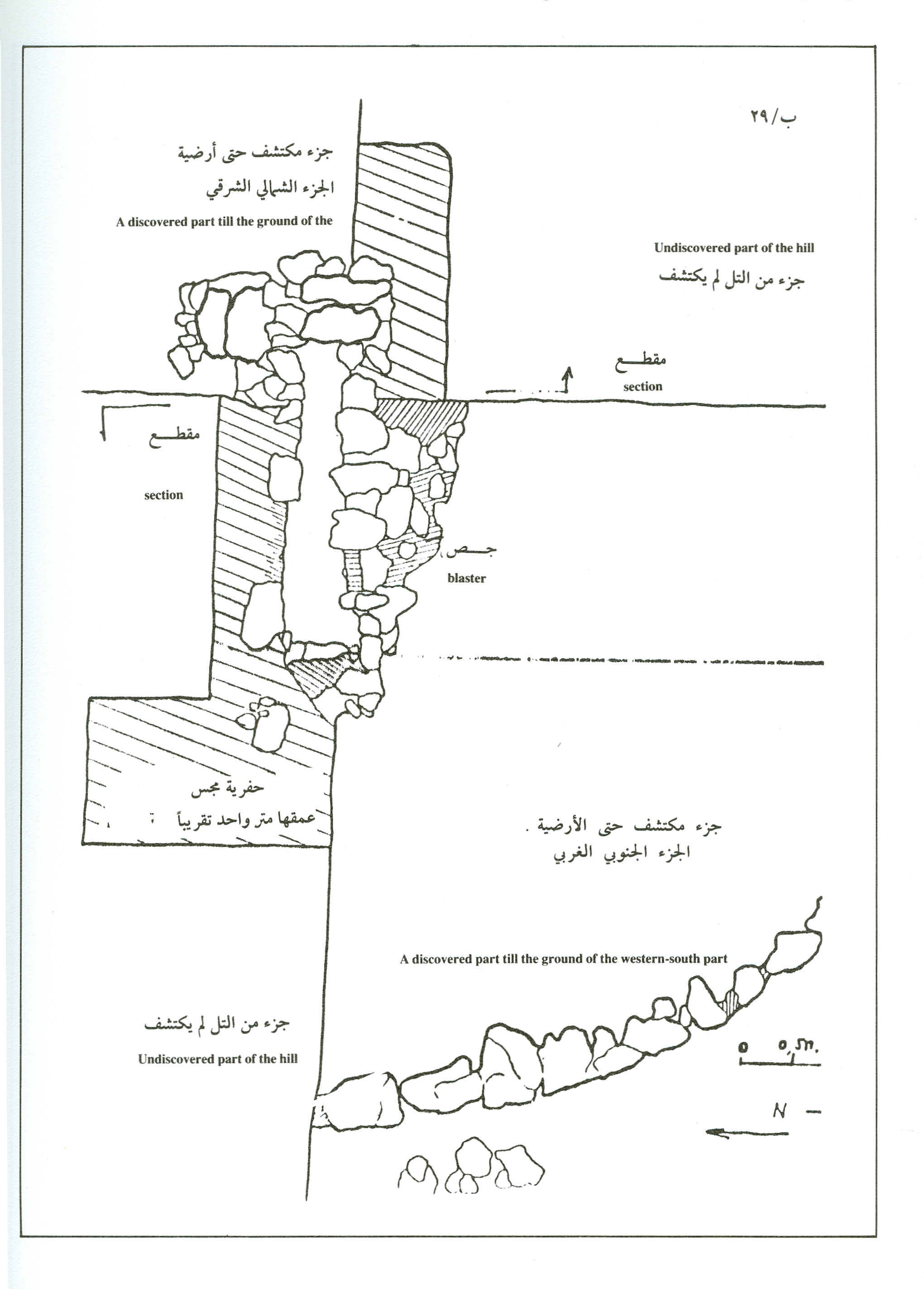
Cemetery (1): 59° northwards, 15 cm. in height, 40 cm. in length, 22 cm. in width.
Cemetery (2): 355° northwards, 110 cm. in length, 45 cm. in width.
Cemetery (3): 350° northwards, 40 cm. in length, 20 cm. in width.
Cemetery (4): 41° northwards, 10 cm. in height, 25 cm. in length, 20 cm. in width, the diameter of the round wall is 780 cm.

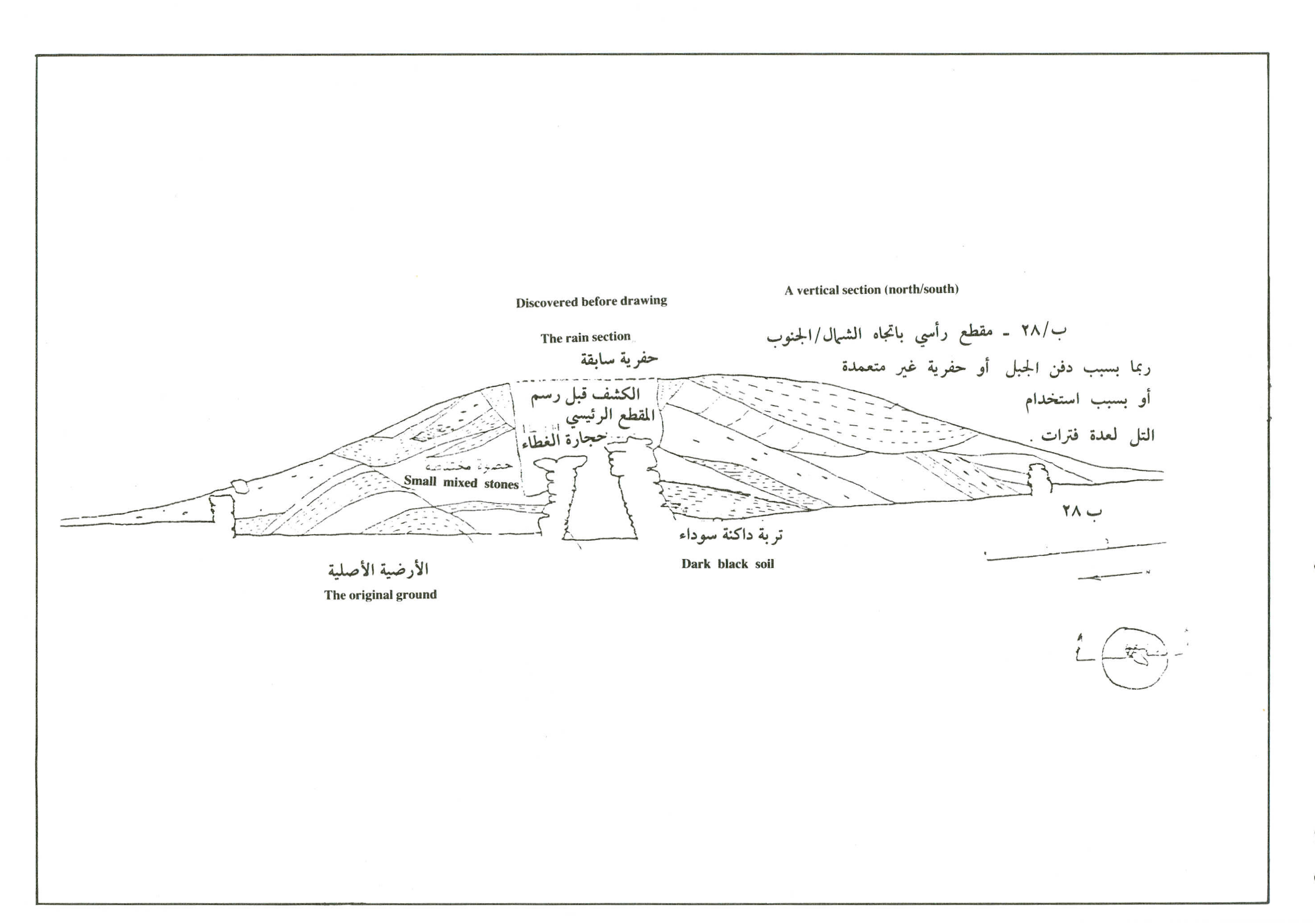

A vertical section from the center till the eastern and western end.
- مقطع رأسي من المركز حتى النهاية الشرقية الغربية
Smooth sand with many stones.
رمل ناعم مع حجارة (حصوة) كثيرة
Smooth sand with stones
تربة داكنة
Dark stones
تربة مختلطة
(رمل تربة وحصوة)
Mixed soil (sand, soil and stones)

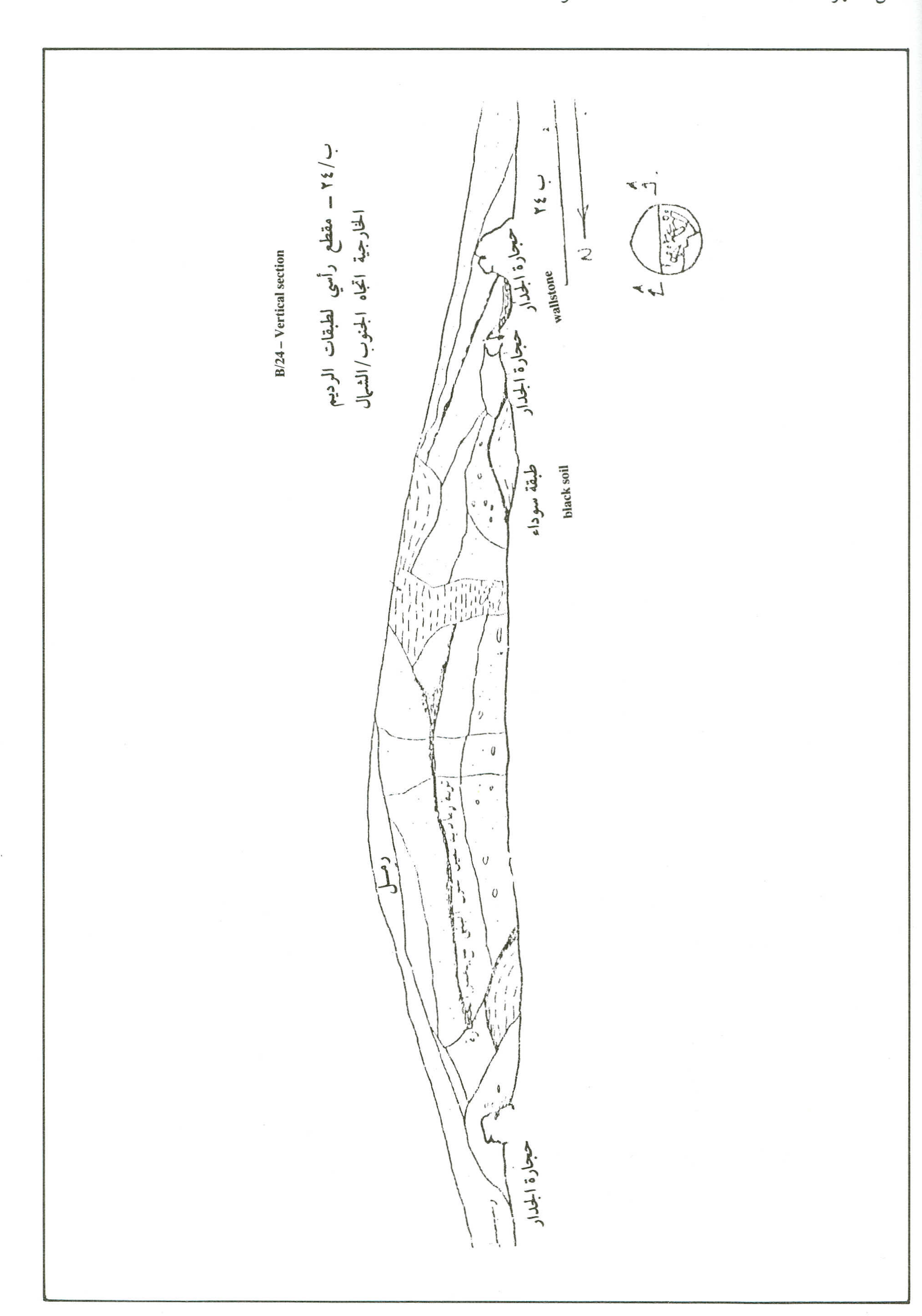

التـل أ/١٠
Sand and Stones
حصوة ورمل
Previous Excavation
حفرية سابقة
Sand
رمل
Dark Soil
تربة داكنة

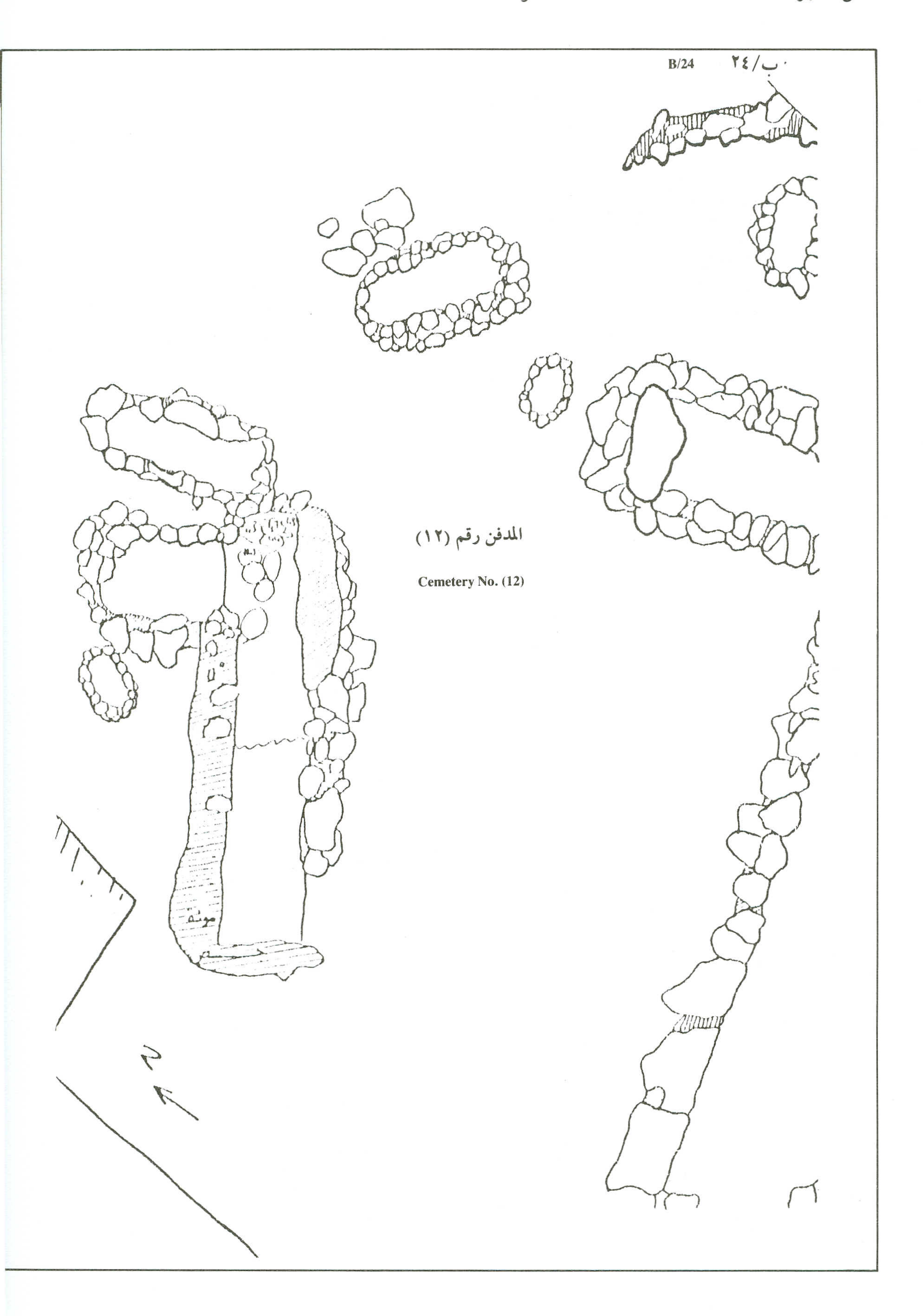

N
Not discovered
لم يكتشف
الحفرية حتى مستوى
الجدار الدائري
The excavation till the level of the round wall
The excavation till the original ground
الحفرية حتى الأرضية الأصلية
A
لم يكتشف
Not discovered
1 metre
A
N
East

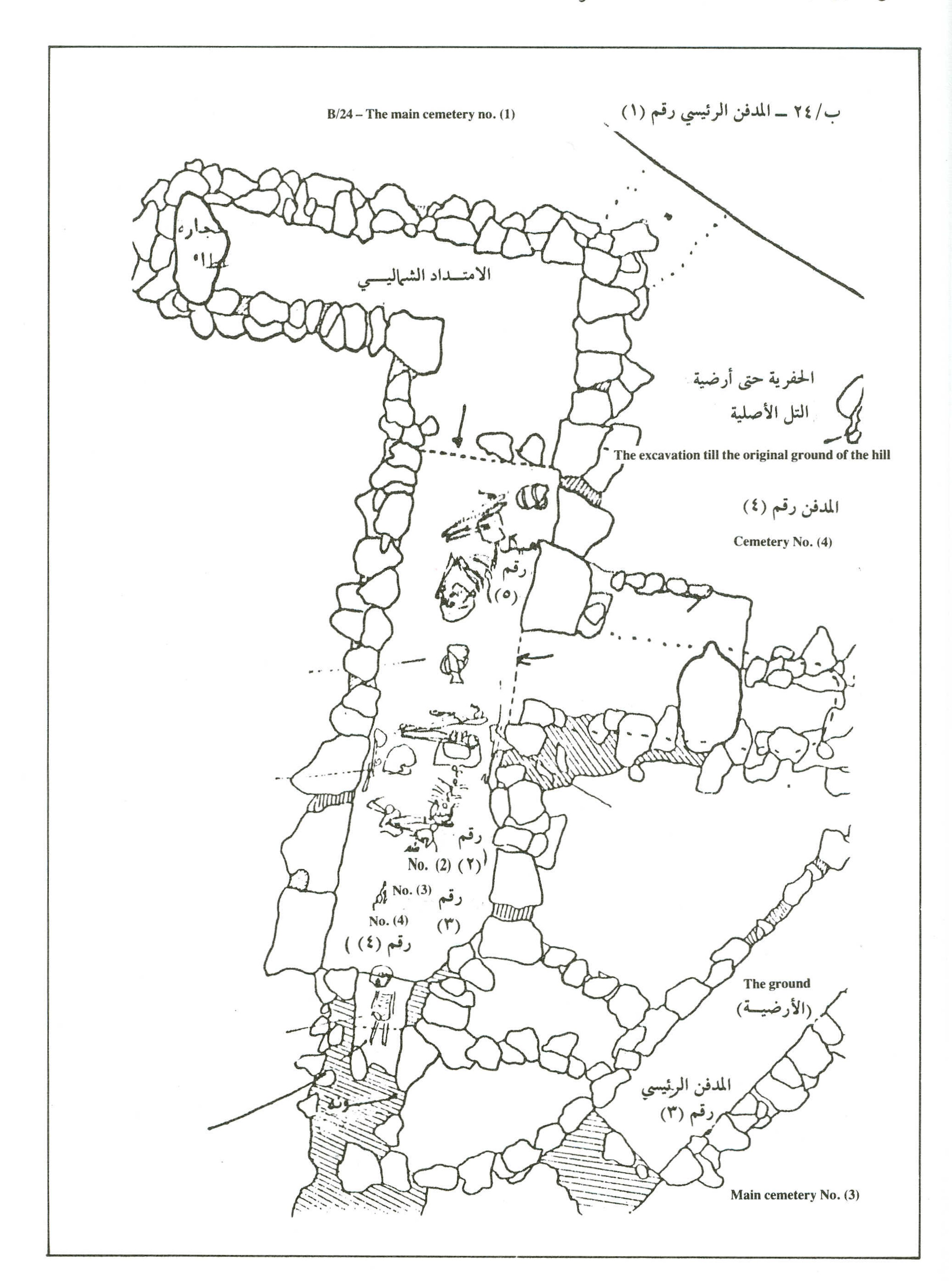

ب/٢٩ - مقطع رأسي تجاه جنوب/شمال
Vertical section – South/North
تربة بنية داكنة
Dark brown soil
تربة بنية فاتحة
Light brown soil


ب/٢٩
جزء مكتشف حتى أرضية
الجزء الشمالي الشرقي
A discovered part till the ground of the
Undiscovered part of the hill
جزء من التل لم يكتشف
مقطع
section
مقطع
section
جص
blaster
حفرية مجس
عمقها متر واحد تقريباً
جزء مكتشف حتى الأرضية .
الجزء الجنوبي الغربي
A discovered part till the ground of the western-south part
جزء من التل لم يكتشف
Undiscovered part of the hill
N

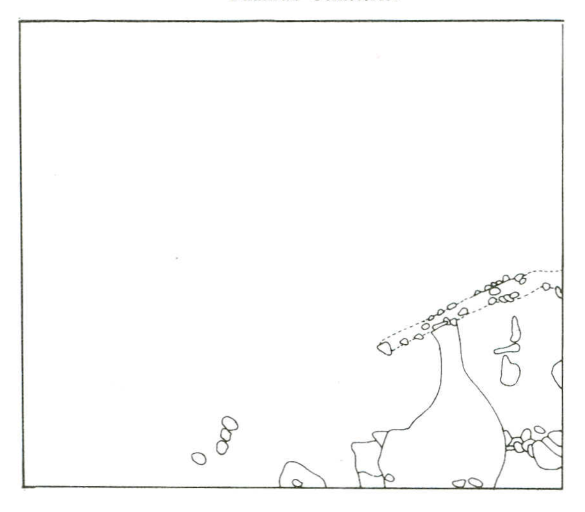

A vertical section (north/south)
ب/٢٨ - مقطع رأسي باتجاه الشمال/الجنوب
ربما بسبب دفن الجبل أو حفرية غير متعمدة
أو بسبب استخدام
التل لعدة فترات.
ب ٢٨
Discovered before drawing
The rain section
حفرية سابقة
الكشف قبل رسم
المقطع الرئيسي
حجارة الغطاء
Small mixed stones
تربة داكنة سوداء
Dark black soil
الأرضية الأصلية
The original ground

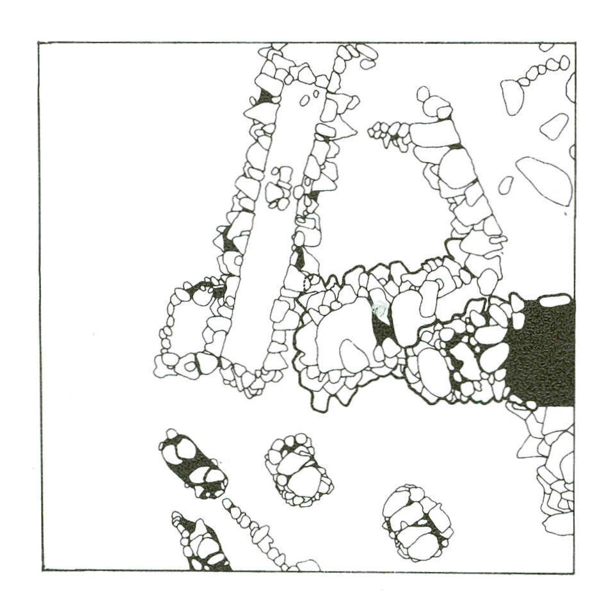

B/24 – Vertical section
ب/٢٤ – مقطع رأسي لطبقات الرديم
الخارجية اتجاه الجنوب/الشمال
حجارة الجدار
wallstone
حجارة الجدار
طبقة سوداء
black soil
رمل
حجارة الجدار
ب ٢٤
N

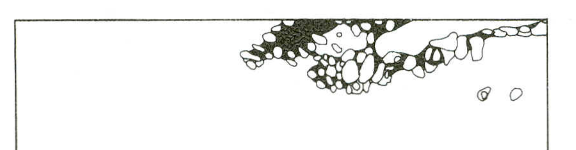

B/24 ب/٢٤
المدفن رقم (١٢)
Cemetery No. (12)


B/24 – The main cemetery no. (1)
ب/٢٤ ـ المدفن الرئيسي رقم (١)
الامتـداد الشمالـي
الحفرية حتى أرضية
التل الأصلية
The excavation till the original ground of the hill
المدفن رقم (٤)
Cemetery No. (4)
رقم
(٥)
رقم
No. (2) (٢)
No. (3)
رقم
(٣)
No. (4)
رقم (٤)
The ground
(الأرضيـة)
المدفن الرئيسي
رقم (٣)
Main cemetery No. (3)

Dhahran Cemeteries







B/24 – The southern half of the hill. (AB)

٢٤/ب ـ النصف الجنوبي للتل (أ ، ب)



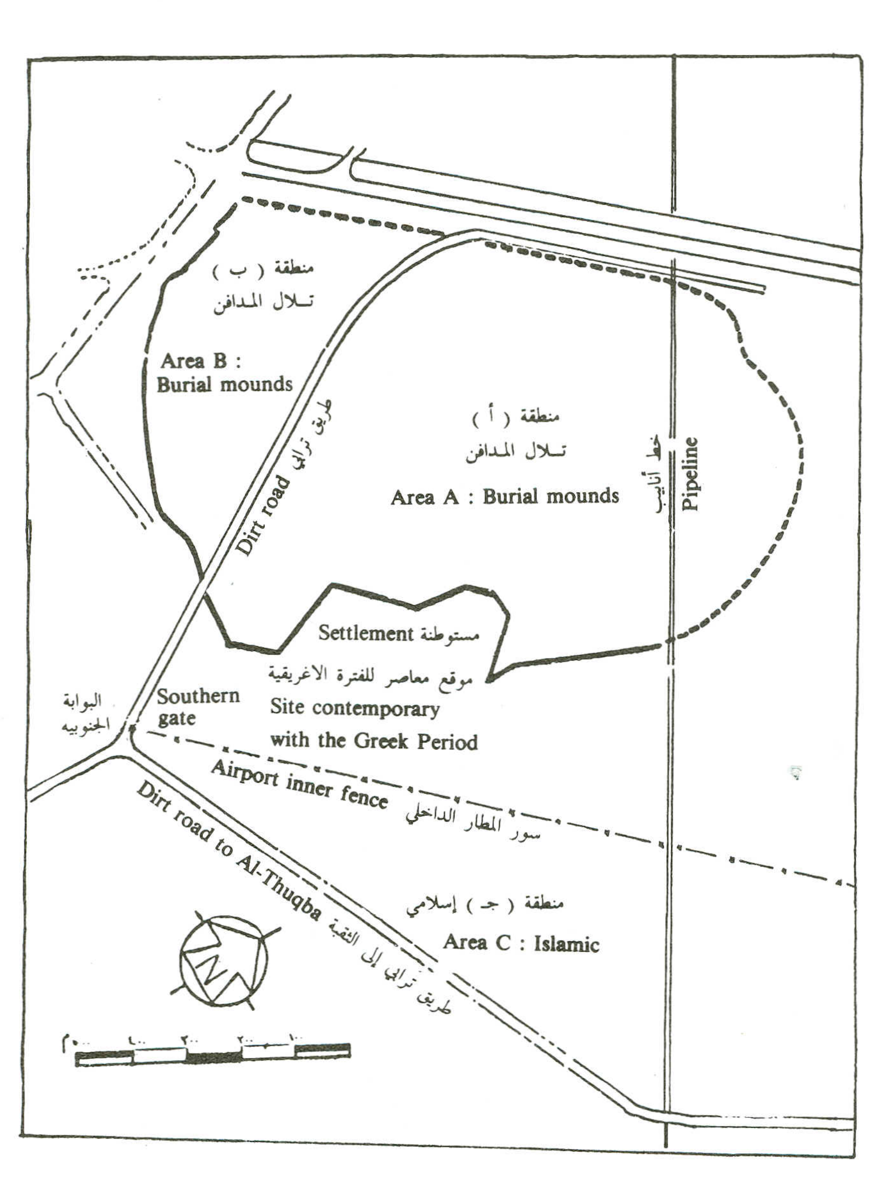
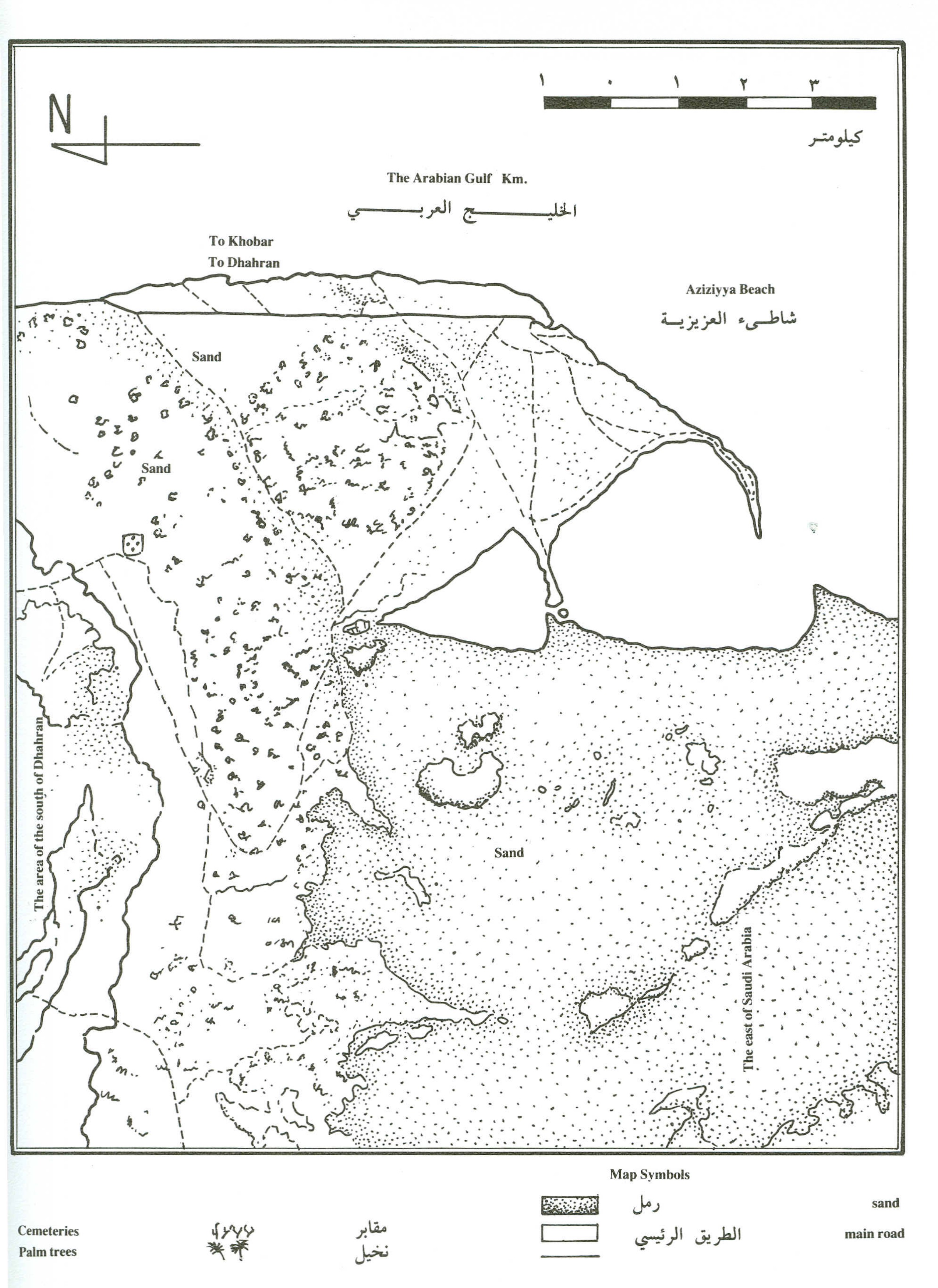
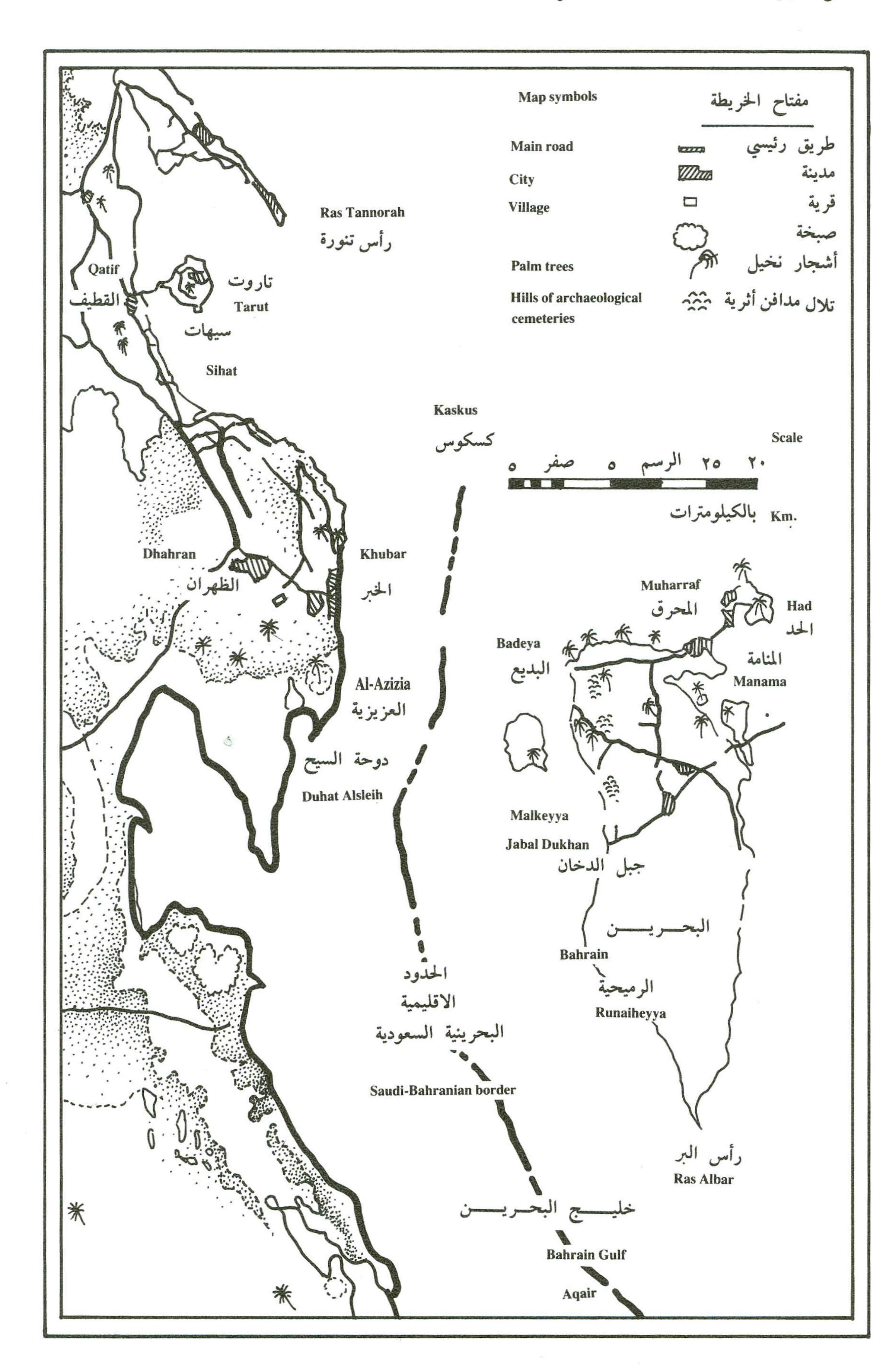


Figure (2): Map showing subdivisions of the archaeological area (A,B,C) شكل (٢): خريطة تبين التقسيمات للمنطقة الأثرية (أ ، ب ، جـ) .



الشكل (١): موقع جنوب الظهران (شمال عين سيح)، من خريطة العزيزية رقم ٦٠٤٢-١١١

Figure (1): A site to the south of Dhahran (to the north of Eenasseh), from Al-Aziziyya Map No. 111-6042


Map symbols
مفتاح الخريطة
Main road
طريق رئيسي
City
مدينة
Village
قرية
صبخة
Palm trees
أشجار نخيل
Hills of archaeological cemeteries
تلال مدافن أثرية
Scale
٢٠ ٢٥ الرسم ٥ صفر ٥
Km.
بالكيلومترات
Ras Tannorah
رأس تنورة
Qatif
القطيف
تاروت
Tarut
سيهات
Sihat
Kaskus
كسكوس
Dhahran
الظهران
Khubar
الخبر
Al-Azizia
العزيزية
دوحة السيح
Duhat Alsleih
Muharraf
المحرق
Had
الحد
Badeya
البديع
المنامة
Manama
Malkeyya
Jabal Dukhan
جبل الدخان
البحرين
Bahrain
الرميحية
Runaiheyya
الحدود الاقليمية البحرينية السعودية
Saudi-Bahranian border
رأس البر
Ras Albar
خليج البحرين
Bahrain Gulf
Aqair